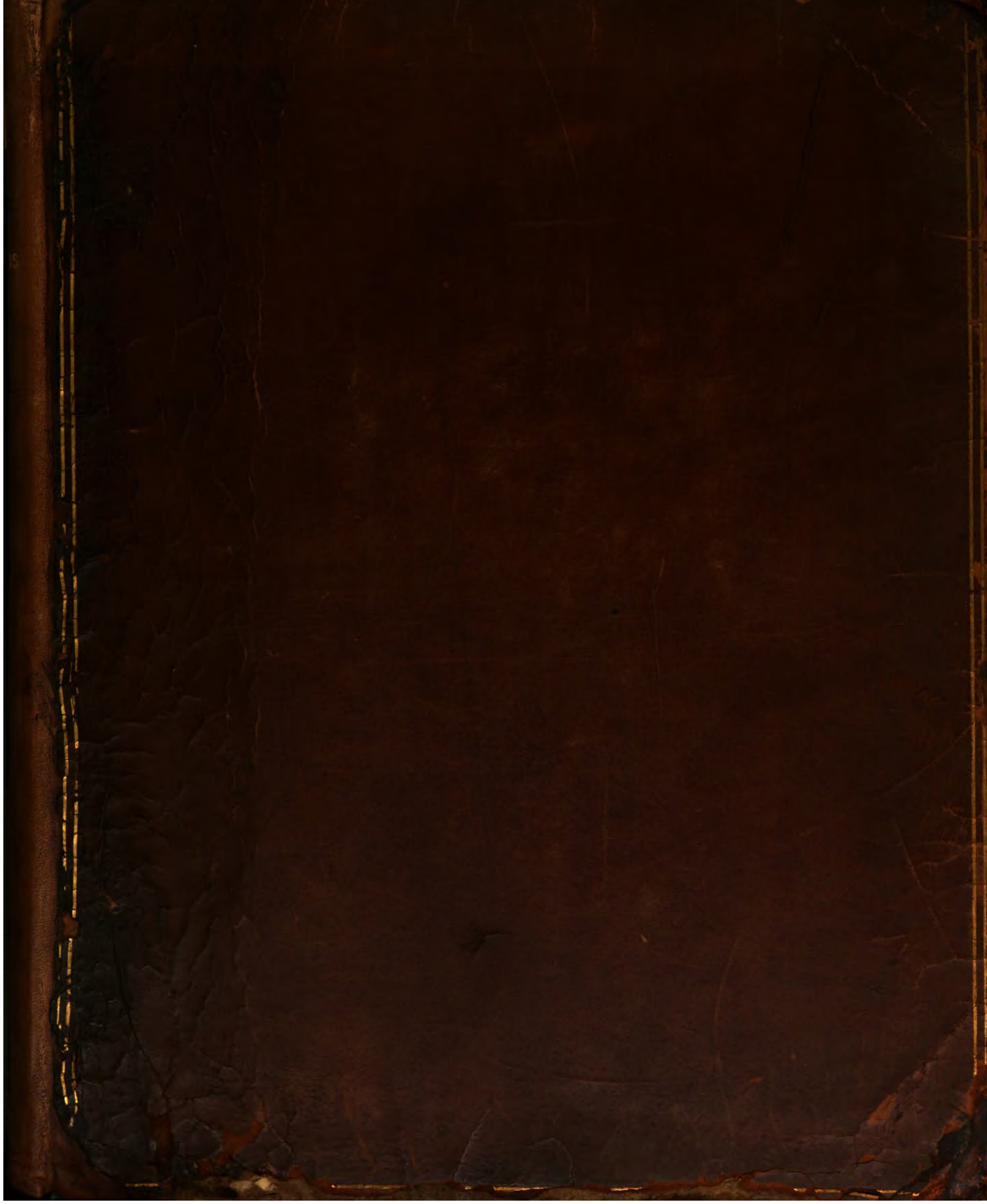








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D I S C O V E R I E S

OF THE

F R E N C H.

DISCOVERIES

OF THE

ANCIENT

SOUTHERN

DISCOVERIES

OF THE

REINCE

C
DISCOVERIES

OF THE

FR EN C H

In 1768 and 1769,

TO THE

SOUTH-EAST OF NEW GUINEA,

WITH THE

Subsequent VISITS to the same LANDS by ENGLISH
NAVIGATORS, who gave them new NAMES.

TO WHICH IS PREFIXED,

AN HISTORICAL ABRIDGEMENT

OF THE

VOYAGES AND DISCOVERIES

OF THE

S P A N I A R D S

IN THE SAME SEAS.

[Charles Pierre Claret de Fleurieu]

B Y

M.

*

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*

, = Capt. C. P. Claret Fleurieu

FORMERLY A CAPTAIN IN THE FRENCH NAVY.

TRANSLATED FROM THE FRENCH.

L O N D O N :

PRINTED FOR JOHN STOCKDALE, PICCADILLY.

M.DCC.XCI.

Wb/66/281

1791

D I S C O V E R I E S

T R E N C H

In 1768 and 1769

THE

SOUTH-EAST OF NEW GUINEA

AUTHOR, F. K. A. C.

Subsequent VISITS to the same LANDS by ENGLISH

NAVIGATORS, who have

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AN HISTORICAL APPENDIX

VOYAGES AND DISCOVERIES

IN THE NEW A. R. D.

IN THE BAY OF

THE FRENCH

L O N D O N :

PRINTED FOR JOHN BUCKLAND, ST. PAUL'S CHURCH-YARD.

THE
AUTHOR'S PREFACE.

IT was no part of our intention to produce a work; too close confinement to business, with too short intervals of leisure, excluded this idea; nothing was more intended, than in a few lines to put in a claim, in the name of the French navy, against the usurpation of an English navigator. But on making some researches relative to this object, materials accumulated on every side; they took a kind of spontaneous arrangement, and the edifice itself was raised before even the plan of it had been conceived. The execution will, doubtless, be affected by this precipitation; but the interest of the subject will make amends for negligence; it is the homage of a citizen to his country, and in such cases the intention only should be estimated.

The

AUTHOR'S PREFACE.

The desire of restoring to the French nation its own discoveries, which an emulous and jealous neighbour has endeavoured to appropriate to herself, induced us to connect in one view, all those that we have made towards the south-east of *New Guinea*; and particularly to prove, that the great land, which Lieutenant Shortland imagined he discovered in 1788, and to which he gave the name of *New Georgia*, is not a new land, but the southern coast of the *Archipelago of the Arfacides*, the famous *Islands of Solomon*, one part of which was discovered, after two centuries, by *M. de Bougainville*, in 1768; and another more considerable, by *M. de Surville*, in 1769. It was not possible to cast our eyes on this side of the globe, without fixing them on the *Tierra Austral del Espiritu Santo*, discovered long ago by *Fernan Quiros*; which *M. de Bougainville* drew forth from the oblivion wherein it had remained, from ignorance of its true position, and which Captain Cook was desirous to add to his own discoveries. The same seas present also the land of *Louisiada*, and some islands still nearer to the Equinoctial line, among the discoveries of the French navigators.

Geographical discoveries are a kind of property, less useful, without doubt, than territorial property, and forming only an imaginary wealth: but as they are connected with national self-love, unsubstantial as they are to the possessor, they have been, at all times, envied and disputed.

In putting in our claim against usurpations, we will endeavour to preserve ourselves from that natural tendency which inclines us, while we favour our own country, to be unjust to others. To each
nation

nation we will restore as much as can with justice be given, of the discovery of the globe; particularly in the tracing this chain of Archipelagos which lie between the east and south, near *New Guinea*: and before we touch upon the voyages undertaken in our own age, we will review the bold expeditions of this early Spanish navigator, who, being the first to cross the *Great Ocean*, established the communication westward between the new world they had discovered, and the numberless islands which some convulsion of Nature seems to have torn off from the continent of Asia.

Whatever we report concerning the early navigators, we have drawn from the original sources; and we have been careful to translate literally the narratives of such particulars as lead to interesting comparisons, when the ancient voyagers treat of the same objects on which their followers, in modern times, have also fixed their attention. These comparisons are valuable to the philosopher, and offer an extensive field for his meditations: it is by these he is enabled to follow the human understanding in its course, to estimate the progress of information, to appreciate the change which two centuries have introduced into the modes of conceiving things in Europe, and to distinguish what belongs to the difference of the times from that which is connected rather with the distinctive characters of nations.

We may be censured for repeating details which every one has read, in the accounts of voyages undertaken in our own times: our reply will be, that they who have not forgotten them, may peruse them again with pleasure; and that those who have them less in mind,

mind, will thank us for thus renewing those ideas: we may add, that as it is not our sole object to attract as many readers as possible by interesting their curiosity, but also to make a work of utility to navigators, to whom it is neither convenient, nor even practicable to carry out a library, this part of our design will, by collecting every thing that relates to the same part of the globe, be most completely accomplished.

Among the voyages contained in this collection, there is one not known in Europe, or even in France, except by a very succinct account which has been published a few years; this is *The Voyage of Surville*. Every thing that relates to this interesting expedition we extracted from the original journal of M. de Surville himself, and those of three officers who commanded under him. The prolixity of these voluminous journals had, doubtless, prevented the attempt of searching in them for extracts worthy of publication: and, perhaps, if Mr. *Shortland* had not endeavoured to appropriate to himself a discovery which he only improved, and which is not yet complete, the expedition of the French navigator would have remained in a manner forgotten. But injustice rouses indolence; and it is not unusual with the French nation, unsuspicious and honest in disposition, to let its rights lie dormant till an attempt be made to attack or to deny them.

The narrative of *M. de Surville's* discovery, which is connected with a part of those made by *M. de Bougainville*, will gain an additional interest in the mind of the reader, when it is recollected that his

Archi-

Archipelago of the Arfacides is that of *Solomon's Islands*. This idea had arisen, and was submitted to the Royal Academy of Sciences [A], as soon as the voyage of *M. de Surville* was known: it will be seen, by a fragment of the instructions given by the king to *M. de la Perouse*, in 1785, that when this opinion was communicated to him, it was considered as almost indubitable that his new examination of this Archipelago would convert probability into certainty: and that made by Mr. *Shortland*, in 1788, has since put the matter out of doubt.

We were unwilling by our remarks to interrupt the narrative of the voyages to which we owe the knowledge of these Archipelagos, south-east of New Guinea; these therefore we reserved for a separate section. We have endeavoured to demonstrate, that the chief part of the modern discoveries in those seas had been already made in earlier times: and while we endeavour to restore to the French navigators the honour of the re-discovery, we hope to prove, by attributing nothing to them but what is incontestibly their own, that we have not been more jealous to defend the rights of our own nation, than careful to preserve to every other the part to which they have just claims in the completion of each discovery.

The plan of this work was presented this year to the Royal Academy of Sciences, on the 24th of April, and has been honoured

[A] In 1781, by *M. Buache*, first Geographer to the King, and since Hydrographer to the Navy, and Member of the Academy of Sciences.

AUTHOR'S PREFACE.

with notice in their registers [B]. At the same time there was laid before the Academy, a fragment engraved from one of the charts drawn up in 1785, to assist *M. de la Pérouse* in his expedition, the originals of which are still in the king's possession: there was added an engraved chart of *M. de Surville's* discoveries, wherein were also inserted the coasts that Mr. *Shortland* saw, and the plan of *Port Praslin*, in which the former navigator made some stay [c].

The

[B] At this period the MS. was nearly finished: nothing remained to be written but the *remarks* on the voyages, and the *analysis* of the new charts. But different causes, of no importance to the public, and still more the pre-occupation of the press for the objects which regard the great interests of the nation, have retarded the publication much beyond the time when we had hoped to bring it out. It will have lost the temporary merit of appearing exactly at the suitable moment, and it is hoped that this delay, which has enabled us to expand the two latter parts, has given as much advantage on one hand, as on the other it destroyed.

[c] See Plates I. III. and IV.

Besides the engraved charts belonging to this work, two others were presented to the Academy in manuscript. One of them is a general chart of the *Great Ocean* between *America* and *Asia*, divided into three zones, which comprehend altogether 66 degrees of latitude on each side of the Equinoctial Line, and 200 degrees of longitude: it is constructed upon *Mercator's* projection, and a degree of the equator is equal to four lines, or one-third of an inch. The second is a general chart of the *Southern Ocean* between *Africa* and *America*; it is drawn on the same projection, and the same scale as the former, and comprehends from the 15th parallel north to the 66th south, and 95 degrees of longitude. These two charts belong to the collection made by order of the king, in 1785, for the Voyage of Discoveries: they are exact copies of those in his Majesty's hands; and as it was wished that their contents should be ascertained to the period of April 24, 1790, the Academy was requested to certify, at the bottom of each chart, the date of its presentation. They are intended

The fragment of the chart drawn up for *M. de la Pérouse*, exhibits the discoveries of the French to the south-east of *New-Guinea*; and is regulated by the astronomical observations then known. We thought it right to present it to the public as it first appeared, without allowing ourselves to make the slightest change; but that we might also take advantage of the information that time has since procured, we determined to form a new one [D]; and, in an explanatory analysis, have distinctly entered into the discussion of its component parts; it was necessary to explain of how much accuracy each of them was capable. This discussion is intended for a very small number of readers, but we thought it proper, for the sake of navigators who are particularly interested in it, to descend to every detail that could convince them with how much attention this new chart has been compiled. The same care has been bestowed in that wherein the *Archipelago of the Arfacides* is represented separately [E]; which is only a part of the general chart further developed. Finally, to complete this work, we have drawn up a systematical chart of *Solomon's Islands* [F], by which is explained how far the imperfect description of Mendana's discoveries, transmitted by the Spanish historians, is applicable to those of the French navigators.

to be engraved, but it was thought best to delay the publication till the discoveries made in the voyage of *M. de la Pérouse* could be inserted. We have his Journal as far as *Botany Bay*, with particular memorandums, astronomical observations, charts, plans, and designs, relative to this first part of his expedition; may we hereafter be able to add the second!

[D] Plate IX.

[E] Plate VIII.

[F] Plate XI.

A melancholy reflection has often come upon us in tracing the general chart of the discoveries made to the south-east of *New Guinea*. It was towards these seas that *M. de la Pérouse*, zealous for the honour of his country in completing its discoveries, should have directed his course when he sailed from *Botany Bay*. Perhaps, thrown by the tempest upon one of those islands, which he meant to enrich with the gifts of Europe; perhaps, assailed by savages, who, in the friend of human kind, saw nothing but a stranger and an enemy, he, and the companions of his labours, — but I refrain: let us rather indulge ourselves in hope; let us recollect that, in our own times, Captain *Wilson*, after suffering shipwreck on the rocks of *Pelew*, with the fragments of his vessel built another, and returned again to his country; that, still more recently, Captain *Bligh*, abandoned, with eighteen more, in the midst of the vast Ocean, performed a voyage of twelve hundred leagues in a slight skiff, and actually came to harbour.

The effect of courage and perseverance, the resources to be expected from the inventive genius of a seaman, the expedients that necessity contrives, are beyond all calculation. If our worthy countryman yet breathes, if he has even saved a plank from wreck, he may yet be restored to our vows. Let us still hope; let us long continue to hope.

Paris, May 15, 1790.

POST-

P O S T S C R I P T.

THE work was finished, and the charts struck off, when the copy of a Dutch chart, published in 1781 by Mr. Dalrymple (*Chart of a great Bay on the North Side of New Guinea, &c.*) [G] fell into our hands. On examining this chart, we find there all the objects noticed by the president *de Broffes*, to whom we owe a description of the coast discovered in the year 1705, by the yacht *Geelvink*, entitled, *Geographical Description of a Coast of New Guinea* [H]. "It is," says the author, "the course taken by the *Geelvink*, on the *South-East Coast*. It appears by the terms with which the Dutch Journal begins and ends, to be the sweep of a large open bay which is here described. It is surprising that neither the elevation of the pole, nor the longitude, are there specified." [I]

[G] Chart of a great bay, on the north-coast of *New Guinea*, from a Dutch MS. communicated by *Richard Gough*.

[H] *Histoire des Navigations aux Terres Australes*, Vol. I. p. 444*. This description is taken from a Dutch work by *Nicholas Struyck*, printed at Amsterdam in 1753, by *Isaac Tirion*.

[I] The *Great Bay*, says the account, extends from east to west not less than 60 German leagues of 15 to a degree. It recedes into the land about 38 leagues southwards, and its eastern point is a degree and a half more south than the other." This general description answers to the bay, the chart of which Mr. *Dalrymple* published in 1781.

From this indication, and according to Mr. *Dalrymple's* example, we had traced, to the south-east of New Guinea, a coast which we had named *Geelvink's Land*; and its north-east point was placed at about eight degrees south latitude. But as, according to the Dutch chart, *Geelvink Bay* is situated between the equinoctial line and the fourth degree of south latitude, it is evident that it cannot occupy the place assigned to it by us: and that to fix it in its proper latitude, we must carry it westward towards the 134th degree east from Paris, on the northern coast of *New Guinea*, and in the part next after *Port Dory*, which concluded the discoveries of Captain *Forest* in this part.

It follows, from the knowledge given us by the Dutch chart, that the land indicated in our Charts I. IX. and XII. under the name of *Geelvink's Coast*, to the north of Bougainville's Coast of *Louisiada*, with the small islands dependant upon it, should be EFFACED. That *Louisiada* may be perhaps only a chain of islands forming a continuation of *New Guinea*; and that all this part still offers a vast field to the researches of navigators, whom the desire of extending our knowledge may induce to visit those seas [κ].

[κ] It may be seen below, p. 260, that before this Dutch chart was known, we regarded the position of the *Geelvink's Land* as very uncertain; and that it appeared to us astonishing that if this land actually occupied the place assigned to it by the charts, it should not have been perceived either by *Dampier*, when he went round the land of *New Britain* by the south, or by *M. de Bougainville*, when he quitted *Deliverance Cape* in his land of *Louisiada*, and directed his course to the north.

THE

THE TRANSLATOR'S PREFACE.

WE now offer to the world a voluntary sacrifice to truth, convinced that our country will applaud us for manifesting in her name a readiness to renounce such claims as appear not to be founded in justice. It is not, we trust, the character of Englishmen to seek a vain and transient glory by arrogating to themselves false titles.

The Strait through which Lieut. Shortland sailed in August 1788 was, at that time, supposed by him to be a new one, and he ventured therefore to give it his own name. When the account of his Voyage from Port Jackson to China was published here, with that of Governor Phillip to New South Wales, it was thought most probable that this passage was the same that had been discovered in 1768 by M. de Bougainville, and this suspicion was therefore mentioned.

tioned in that work. Mr. Shortland very candidly allowed the insertion of that remark, and doubtless will be equally ready to withdraw his claim from every discovery, that shall appear to have been pre-occupied by other navigators. At the same time it must not be forgotten, whenever these discoveries shall be mentioned, that of the whole southern coast of these famous islands, excepting a very small part near Cape Surville, at the eastern extremity, Mr. Shortland was, as far as this age is concerned, the uncontested discoverer. The long-agitated question concerning Mendana's Islands of Solomon is now perhaps determined finally, and it affords us some gratification to perceive that our countrymen, who in so many discoveries have taken the lead, in this have not been wholly deficient.

In these points the geographer and the seaman are chiefly interested, but the public at large will certainly receive with pleasure the account of M. de Surville's little known, and very curious voyage, which is here published from materials so perfectly authentic. *Lova Sarega* is there made rather an interesting character, and though we cannot rank him in that respect with Captain Wilson's Prince Lee Boo, there are many traits in his character which must infallibly attract esteem.

If the arguments of our author, in this work, be deemed conclusive, the name of New Georgia, given by Mr. Shortland to the whole chain of coasts which he discovered, will give place to the original title conferred by the Spanish navigator, *the Islands of Solomon*: and whatever we may feel upon the removal of the English name, we
cannot

cannot regret the similar extinction of M. de Surville's appellation for them, the *Lands of the Arfacides*; a long and awkward name founded on a remote analogy, and depending on an etymology that is most probably erroneous, would have appeared with little grace in the nomenclature of geography.

It is certainly of particular importance to Great Britain, as the French author remarks, p. 271, that the navigation of these seas should be correctly known; the frequent intercourse that must now take place between Port Jackson and the Chinese coasts, will make this knowledge essentially necessary, and it will consequently be obtained. In the course of a very few years, it is most probable that the whole of these new lands will be correctly ascertained by British navigators; the ports, the channels, and the shoals, will be carefully explored, and laid down in accurate charts; and the dangers and advantages of every different passage will be completely known and estimated. This knowledge, with the practical improvement to our mariners employed in the acquirement of it, will be among the collateral advantages which usually arise unexpectedly out of every great and salutary undertaking. In the mean time the acute observations and comparisons of the French geographers, and particularly of the learned and ingenious author of this work, must be of great advantage to those who go on this enquiry; will give some safe direction to their researches, and serve as a kind of Ariadne's clue to conduct them through this labyrinth of islands. By the efforts of such men as these, and Mr. Dalrymple in our own country, so frequently and so justly mentioned with honour in the pre-

sent publication, the discoveries of each navigator will speedily be turned to the best advantage, and directed in the clearest manner to the solid improvement of geographical science.

The scientific details at the latter end of this volume, probably will not be relished by those who read for mere amusement, but it will be perceived also that there is much in other parts to interest general curiosity, and that with respect to utility these are in fact the most essential: they are the vouchers by which the credit of the charts must always be estimated, and on which therefore the navigator, when he consults the charts, must place his ultimate reliance.

The translator has little to say respecting his own part in the present publication: in the midst of technical terms and phrases not current in ordinary use, he has felt some difficulties, and perhaps more apprehensions: but he hopes that care and attention have enabled him to avoid important errors. In a few places, not worth express notice, he has ventured tacitly to correct the readings of the original, where he was not directed to it by the table of errata, but by the context or other authorities; and he has repented that he did not do it at p. 29, instead of inserting a quere among the notes, as it seems indubitable that the true reading must have been *Ouest* instead of *Est*. He informs the reader that *île de la Pentecôte*, though at first translated *Pentecost Island*, is afterwards changed to *Whitsuntide*, in consequence of its being found so in Captain Cook's Voyage: the most exact version would have been *Whitsunday Island*.

With

With respect to the custom described in the Latin note D, in p. 153, as peculiar, and not remarked by any voyager, the translator suspects it to be the same as that referred to by Captain Cook, as being in Wafer's Voyage, p. 140. Captain Cook does not explain himself fully, and his reserve corroborates the suspicion, which is only mentioned for the sake of those to whom it may be more convenient to enquire: if it be so, it is spoken of at least three times in Cook's Second Voyage, in Vol. II. pp. 34, 49, and 80.

The wish for the safety of M. de la Pérouse, so strongly expressed in the author's preface, has not yet been gratified; and some passages in our public prints, which lately excited hopes on that subject, have proved fallacious. The latest accounts of that navigator were those which he dispatched from Botany-Bay by the English ships, in 1788 *. Those papers, plans, maps, &c. are expected soon to furnish a publication in France; but in the midst of enquiries for him, and honours paid to his family, the apprehension of his loss increases daily.

* See Governor Phillip's Voyage, p. 86.

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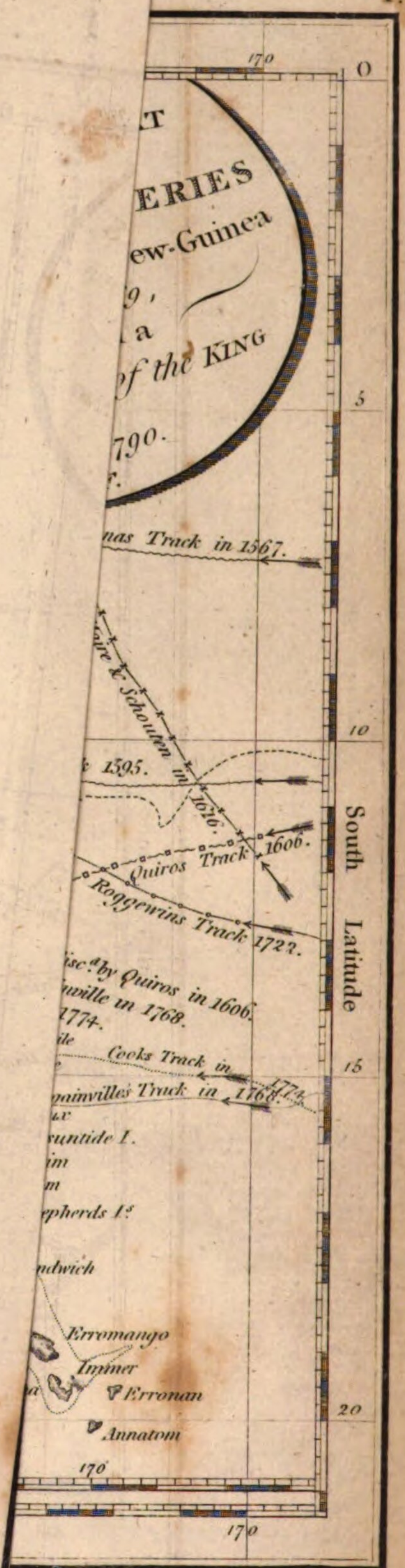
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 Situation of the Islands of Solomon, presented to the Royal
 Academy of Sciences, Jan. 9, 1781, by M. Buache. 1309

DISCO-



W.H.&J.Reid sculp.

D I S C O V E R I E S

OF THE

F R E N C H

In 1768 and 1769.

BEFORE we recount the discoveries of the French nation to the south-east of New Guinea, since the middle of the 18th century, and the later surveys of the same places by the English, it has seemed convenient to give a sketch of the navigations of the Spaniards in the same latitudes, during the two preceding centuries, and to point out the object and the result of their voyages. The notices which could be collected of these ancient expeditions were so confused, and came to us with such an intermixture of fables, that we felt inclined to doubt the very existence of the countries described by the Spanish writers. But modern navigators, well skilled in turning to advantage the assistances offered to their courage by improvements, giving perfection to naval architecture and marine astronomy, have resumed the former tracks, and aimed at finding new ones. Their researches being crowned with success, they have had the credit of discovery, though in

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general

general they have only found those lands again, whose true situation the ignorance and carelessness of the first navigators had not allowed us to ascertain. In speaking, however, of the ignorance of those who first entered on this career, we are far from wishing to depreciate them; we cannot see, without astonishment and admiration, what they ventured to undertake, with slight vessels, in seas entirely unknown, of the extent and the dangers of which they were equally uninformed. The want of those resources which belonged not to their time, must make us think more highly of the efforts of their courage. Nothing could tarnish the glory of their enterprises but that which is too well known to have been their object. The ambitious desire of conquest, and the thirst of gold, engaged them in the most perilous navigations: while the Argonauts of our own age, encountering the same dangers, have had no other views than the acquisition of fame, the desire of perfecting the knowledge of the globe, and the study of nature and of men; and have regarded as only an accessory advantage that extension of commerce, which may augment our riches, and increase the number of our enjoyments.

We will not undertake to retrace all the expeditions which were made before this century, in the *Great Ocean* between America and Asia[A]. We will confine ourselves to those which led to discoveries in

[A] We have many accounts of particular voyages written in different languages: they may be found also dispersed in the works of Spanish and other authors, such as *Herrera, Figueroa, Acosta, d'Ovaglio, Valentyn, &c.* and they have been in a great measure brought together in the collections of *de Bry, Hakluyt, Purchas, Churchill, Thevenot, Osborne, Ramusio, Harris, &c.* in the *General History of Voyages* by the abbé Prevost, in the *History of Voyages to the Terra Australis*, by the president des Brosses,

in the seas which lie to the south-east of New Guinea: discoveries renewed by the French navigators, some of which have been completed by the subsequent visits of the English. The voyages of which it is most important for us to know the details, are, 1. the first voyage of *Alvaro Mendana de Neyra*, in 1567, when he discovered a group of large islands, which, from the romantic idea of their riches, suggested by his enthusiasm, he named the *Islands of Solomon*. 2. His second voyage in 1595, when he fell in with several new islands, and particularly those of *Santa Cruz*, situated to the east of the islands of Solomon. 3. Lastly, the voyage of *Pedro Fernandes de Quiros*, and *Luis Vaez de Torres* in 1606, who discovered several islands, and particularly an Archipelago, of which they visited only a small part, which they named *Australia del Espiritu Santo*.

The same countries of which we had these accounts, have been found again in our time; and it cannot fail to be an interesting task to compare what the early navigators have said of them, with what the moderns have been able to see. The countries and their productions have, doubtless, changed no more than their inhabitants, which have been found the same; but philosophy and avarice see with different eyes.

Brosses, &c. but of all these collections, that which presents most satisfactorily the whole view of the voyages in the southern sea, is, the *Historical Collection of the several Voyages and Discoveries in the Southern Pacific Ocean*, by Mr. Alexander Dalrymple: this elegant writer has there discovered, in an eminent degree, the talent for research, the experience of an able navigator, and the discernment of an enlightened and impartial critic.

[4]

F I R S T
V O Y A G E

O F

ALVARO DE MENDANA,

IN M.D.LXVII [B].

DISCOVERY OF THE ISLANDS OF SOLOMON.

(See Charts I, & XI.)

MENDANA.

1567.

WE have no satisfactory relation of this first Voyage of Mendana. That which offers the greatest detail, and on which we have thought ourselves obliged to depend, was that given by *Figueroa*, and published at Madrid in 1613 [c]. From this we will extract

[B] All the historians have placed this Voyage of Mendana in 1567. *Figueroa* alone says, that Mendana sailed from Callao the 10th of January, 1568 (*En Dièz de Enero de sesenta y ocho*). It seems that here must be an error of the press, since, at the end of the narrative, we read that the fleet came back to the coast of America, and anchored in the port of St. Yago the 22d Jan. 1568 (*a Veynte y dos de Enero de sesenta y ocho*). We have followed the general opinion, and referred this Voyage to the year 1567.

[c] This was found in the work entitled, *Echos de Don Garcia Hurtado de Mendoza, quarto Marques de Canete. Por el Doctor Christoval Suares de Figueroa. En Madrid,*

extract whatever has reference to the subject of the present MENDANA.
work. 1567.

Mendana sailed from Callao (the port of the city of Lima) the 10th of Jan. 1567. At fourteen hundred and fifty leagues [D] West from the coast of Peru, and in six degrees $\frac{3}{4}$ of Southern latitude, he discovered a small island inhabited by a copper-coloured [E] race of men; which he named the Isle of *Jesus*.

He pursued his route to the West; and after having been seventeen days in making 160 leagues, with winds and currents against him, he fell in with a shoal, extending from North East to South West, about 15 leagues, in the middle of which were raised a few small islets. It received the name of *Baxos de la Candelaria* (Candlemas Shoals) which seems to denote the day when it was discovered. The middle of the shoal is in $6^{\circ} \frac{1}{4}$ of South latitude. From that place they descried another land to which they bore down, and anchored in a port which they called *Santa Ysabel de la Estrella* (St. Isabel of the Star).

en la Empronta Real M.DC.XIII. Small 4to. from page 228 to 237. Mr. Dalrymple has given an English translation of it in his *Historical Collection*, &c. Vol. I. p. 176, &c. and M. Pingré had previously given an Extract from it in French, in his *Memoir for the Transit of Venus of the 3d of June, 1769.* Paris, 1767. P. 22 to 29.

[D] These are Spanish leagues, of $17\frac{1}{2}$ to a degree. These 1450 leagues are equal to $1657\frac{1}{10}$ French marine leagues, of 20 to a degree. In general, to convert Spanish leagues into French marine leagues, we may add a sixth to the number of the former.

[E] Figueroa says *Gente amulatada*, a race of *Mulattos*.

The

MENDANA.

1567.

The inhabitants of this country worship serpents, toads, and other animals. Their complexion is a bronze, their hair woolly: and they wear no covering but round the waist. They subsist on coconuts, and a sort of root which they call *Venaus* [F]. They eat no flesh, and are ignorant of the use of fermented liquors, they have, therefore, a clearer complexion [G] than those first seen. But there is no room to doubt that they are cannibals: the Cacique sent, as a present to *Mendana*, a quarter of a child [H], having the hand and arm upon it. The Spanish general caused it to be buried in the presence of those who had brought it, who seemed offended and confused at the bad success of their embassy, and retired hanging down their heads.

[F] *Figueroa* says, *Es su comida cocos, y rayzes que llaman Venaus.*

[G] The original says, *Son mas limpios.* The Dictionaries render *limpio* by neat, pure, unmixed with Moorish or Jewish race, an old Christian by father and mother.

[H] *Un quarto de un Muchacho.* Let us believe, for the honour of the human species, that the imagination of the historian has led him astray. The irrefragable testimony of Voyagers, both French and English, has unhappily proved too fully, against the assertion of some philosophers, that there are man-eaters. It is certain that, in general, the tribes of savages inhabiting the islands of the South Sea, eat the prisoners they have taken in war: and this custom, at which nature shudders, might find an appearance of excuse in the infinite price which barbarous nations set on revenge. The priests of the ancient northern nations promised their warriors, to excite them to battle, that, after their death, they should drink nectar in the skulls of their enemies; but no Voyager has reported, as the Spanish narrative seems to indicate, that there exists any where a race of men whose ordinary repast is human flesh. *Figueroa* has said just before, that the savages of Santa Ysabel eat no flesh; let us hold to this first assertion.

This

This people is divided into tribes, which are in a continual state of warfare: the prisoners are condemned to slavery.

MENDANA.

1567.

Mendana caused the first mass to be said there that ever had been celebrated upon that land. He also constructed a brig, which carried eighteen soldiers and twelve sailors. His Colonel *Pedro de Ortega*, having under him the *Piloto Mayor* (chief pilot) *Hernan Gallego*, took the command of her. This vessel was dispatched upon discovery.

Ortega took his course to the South-East, following the direction of the coast; and at eight degrees of latitude he found two small islands covered with large palm-trees. These were not more than six leagues from the port in which he was fitted out. He afterwards fell in with several more isles in the same track. He saw also a large bay, with eight small islands, all inhabited by men armed with wooden swords, and bows and arrows. At 14 leagues due East of this bay appeared a large island, called by the natives *Malaita*: in the middle are two islets, each of them close to a head-land, in eight degrees of latitude: the Spaniards named this island *Isla de Ramos* (Palm-Sunday Island) from the day of the discovery.

Proceeding onward by the coast of St. Ysabel [1], they came to a port and a cape, in 9 degrees of latitude, and about 14 leagues from

[1] St. Isabel is, doubtless, the name they had given to the first land, where the fleet had anchored in the port of *Santa Ysabel de la Estrella*.

the

MENDANA.

1567.

the former gulf; the cape was named *Cabo Prieto* (Black Cape). At the South-East [κ] of this cape, and at the distance of nine leagues, several islands appeared, and they touched at that which they first saw. It may be about five leagues in circumference, and is surrounded by reefs. It was named *la Galera* (the Galley). A league from this is another island, of twelve leagues in extent, due South-East of Cape *Prieto*: and visible at the distance of nine leagues. It is well peopled, and there are parts of it cultivated and inclosed. This appearance gained it the name of *Buena Vista* (Good View), and it was judged to be very fertile. Its latitude is $9^{\circ} 30'$. Round it were seen several small islands, inhabited; and five others forming a line [L], extending from East to West; in the first of which they landed. The inhabitants dye their hair red. The explosion of fire arms terrified them much. In calling to arms, they found the alarm with conchs [M] and drums; they are also cannibals. The circumference of this island is $25\frac{1}{2}$ leagues, and its latitude $9\frac{1}{2}$. It received the name of *Florida*. The

[κ] In the original *Sudueste*, South-West, which is a fault of the copy, or of the press; for, supposing it was South-West, it would be said (as we shall see) that the island of *la Galera* is situated at nine leagues distance, South-West from Cape *Prieto*; and that the island of *Buena Vista*, which is only a league from *la Galera*, lies South-East from the same cape. These two bearings would be contradictory. M. *Pingré* has made the same remark in his Memoir for the Transit of Venus of June 3, 1769, p. 24.

[L] *En Coraillera*.

[M] The original says *Caracoles*. The word Caracole is translated in the Dictionaries, "A sea shell, in form of a screw, and pierced at one end: it is made use of as a horn in some musical bands."

three others were named [N] *San-Dimas*, *San-German*, and *Guadalupe*; and another, to the South-East of the five former, was called *Sefarga*. This may be about eight leagues round; lies in $9^{\circ}\frac{1}{2}$ of lat. and is distant five leagues South-East from *Buena Vista*. It is elevated; of a round form, and well peopled. It abounds with *Ynanimes* [O] and *Panays* [P]; some hogs were also seen. In the middle of the island was a volcano, which sent out a thick smoke incessantly.

MENDANA.

1567.

Immediately after, another island of vast extent was discovered, watered by a river, the channel of which is broad and deep. Many of the inhabitants, men, women, and children, approached, in canoes, to view the Spaniards. The Colonel visited a village, where were found some baskets filled with green ginger and other useful roots: there were also a few hogs. The name of *Guadalcanar* was given to the island, and the river received that of *Ortega*.

Quitting *Guadalcanar*, the vessel, with all its crew on board, took its course to regain the port of *Estrella*, where they had left the fleet at anchor: and, pursuant to the order of the General, which was to make the tour of *St. Isabel*, passed again by Cape *Prieto*. Seven

[N] Figueroa has mentioned five islands, but four only have names assigned.

[O] *Ynanimes* probably means *Ignames*, a species of plant belonging to America and other hot countries, with an esculent root; and called in English a *Yam*.

[P] *Panais*, *Parsnep*, an European garden herb, is called in Spanish *Zanahoria*: but what plant *Figueroa* meant to denote by this name is uncertain.

MENDANA. leagues to the W. S. W. of the cape, they discovered another island, to which they gave the name of *San-Jorge* (St. George): it was distant five leagues [Q], and formed with *Isabel* a channel to the South-East, which is six leagues long, and at the West end, one in breadth. There is a port which might contain a thousand vessels at anchor, with from eight to twelve fathoms [R], of the most limpid water: the entrance of this harbour is towards the S. E. and the outlet to the N. W. There, on one of the shores, was a village consisting of more than 300 houses. In the island of St. George some pearls were found, which the inhabitants did not seem to think of any value: they gave a great number of them to redeem one of their canoes, which the Spaniards had seized.

They proceeded along the southern coast of St. Isabel; and after having gone about forty leagues, fell in with very extensive reefs (*unos grandes arrecifes*) [S], on which they saw a great number of Indians in canoes, fishing. They collected themselves into one body to attack the brig; shot their arrows, and then betook themselves to flight. Among these reefs were distinguished several small inhabited islands, and some that were unoccupied.

[Q] Here is an omission. Does *Figueroa* mean that the island was five leagues from the brig, or from Guadalcanar?

[R] The Spanish fathom is *two Varas* or six Castilian feet. The Castilian foot is to the French foot as 0,859 to 1. So the Spanish fathom of six feet exceeds the French fathom of five feet, by one inch ten lines French measure.

[S] *Arrecife*, an Arabic word, signifying a stone cause-way, of which the French have made *Ressif*. And doubtless the English, reef.

In the neighbourhood of the last point, namely, the most western point of St. Isabel, which lies in $7\frac{1}{2}$ degrees of S. latitude, were many other islands, all of them inhabited. They saw there bats, which, from one extremity of their wings to the other, measured five feet [T].

MENDANA.

1567.

The length of St. Isabel is ninety-five leagues, its breadth twenty, and its circumference above two hundred.

After having gone round the island, and doubled the western extremity, *Ortega* found the same East, and E. S. E. winds, which had so much favoured his course thither; but were now adverse to him in the return to the port where the fleet of *Mendana* was anchored. Seeing it impossible to coast along, with winds so very contrary to his course, he took the method of sending off in a boat, nine soldiers, a sailor, and a native of the island whom he had attached to him, to report

[T] The original says, *Vieronse aqui Murcielagos que, de punta a punta de las alas, tenian cinco pies.* "They saw there bats, which, from one point to the other of their wings, were five feet." Mr. Dalrymple has translated it, "They saw cockles here, which, from point to point of the shells, were five feet." This seems to be a fault. *Murciegalo* *Murceguillo*, or *Murcielago* in Spanish, means the animal, called by the French *Chauve-fouris*, by the English *bat*. This oversight is noticed only because bats, with that expansion of wings, well deserve particular mention. Have the *Mineides* of Ovid taken refuge at St. Isabel: and was this their posterity which *Mendana* saw? The exaggeration is not yet so great as it may seem. Dampier, who has the reputation of exactness, says that he saw, in the small island of *Sabuda* (*pulo Sabuda*) on the Western coast of Papua, bats as large as young rabbits, having wings of four feet in extent, from one tip to the other. (See Dampier's *Voyages. A Continuation of a Voyage to New Holland in 1699.*)

MENDANA. to the General the discoveries they had made, and the obstacles which
1567. had retarded their return. The boat coasted close under land, till it struck upon a reef, and was dashed to pieces. The crew, with great difficulty, saved themselves. Unhappily all their powder was wetted. This accident determined them to return by land to their ship, with which design they marched all night, never quitting the shore; passing from point to point of the rocks, and in constant apprehension of being attacked by the Indians. They found a cross, which they had set up in a spot where the boat had touched; and having there performed an act of Christian devotion, resolved to wait three days for the brig; and if she did not appear within that time, to construct a raft, in order to gain the port where they hoped to find the fleet. They were plunged in this affliction, when, to their great astonishment, the brig appeared in sight. They made signals with a flag, which were perceived: the vessel came to shore, received them on board, and continued its course to port *Estrella*, where *Mendana* waited for its return. On their arrival they found some of their countrymen dead, and others sick. The General immediately determined to quit the port, and passed between the reefs which formed the entrance.

He continued his route, with easterly winds, sometimes violent, till he arrived at a beachy shore of the island of *Guadalcánar*. They endeavoured to find another port, besides that discovered by the brig, and found one near a river, which they named *Gallego*. The harbour received the name of *La Cruz* (The Cross). The following day they took possession of the country for his Majesty, and set up a cross upon a small eminence, in the presence of some natives, who

who disturbed the ceremony, by discharging arrows at the Spaniards. MENDANA.
They fired, and shot two Indians, upon which the rest fled. Nevertheless, 1567.
the chief pilot, *Fernando Enriquez*, and thirty soldiers, were detached to visit the country. While they were on the search to discover a river, they were assailed by so large a party of the natives, that they were obliged to give up their pursuit, and stand entirely on the defensive. The sailors affirmed, that the river washed down a great deal of gold: and when they returned, brought with them two hens and a cock, the first they had hitherto seen. *Mendana* was much pleased at these circumstances: every day afforded the discovery of new lands, and every discovery added to the hopes he felt of the riches he might derive from them.

He determined to dispatch the brigantine again, under the command of Don *Fernando* and the chief pilot. They sailed E. S. E. and, at the distance of two leagues, found again the river *Ortega*, (near which they had first moored) and discovered a coast covered with dwellings. They touched at several islands, and discovered several rivers, which it would be too long to enumerate, sometimes finding opposition, at others meeting with an amicable reception from the inhabitants. At length they rejoined the fleet, and learned, to their sorrow, that nine of their companions, and the purveyor of the fleet, being on shore watering, had been massacred by the islanders. Hitherto the Cacique, or chief of the district, had proved himself a friend to *Mendana*; but the Spaniards having carried off a young Indian, and refused to restore him to his solicitations, his affection for them had been changed to hatred.

MENDANA.

1567.

Eight days had passed after this unfortunate event, when *Mendana* determined to take vengeance for it. He ordered captain *Pedro Sarmiento* to land with all his troop, and testify his resentment upon the natives and their habitations. He was but too faithfully obeyed: they killed twenty men, burned many houses, and returned on board. A second descent, with fifty soldiers, was then ordered. They again destroyed a number of habitations; in some of which they found scraps of shirts and clothes, and other spoils of the Spaniards who had been slain.

On the 13th of June the fleet set sail again; and having beat up two leagues to the windward, to the place the brig had visited, they perceived several villages. Thence they directed their course to an island, which received the name of *San-Christoval* (*Saint Christopher*); the vessels anchored there, and the general landed. As soon as the islanders perceived it, they declared by signs to the Spaniards, that they would not have them advance, but that they should re-embark. Perceiving that no attention was paid to their prohibition, they began to make the most extraordinary grimaces and contortions, agitating their bodies like persons convulsed, scratching the earth with their feet and hands; and at length running towards the sea, they threw water into the air, and made various gesticulations equally unaccountable. The trumpet was now sounded for support; and captain *Sarmiento* immediately came up with his troop to the place where the general was. The Indians advanced towards the Spaniards in a warlike manner; each of them armed with two or three darts. Some had also *macanas* [v], (sabres of hard wood) bows and arrows.

[v] *Macana*. The Dictionaries translate it, a kind of ancient sabre of the Indians, made of a very hard wood, and armed along the edge with sharp flints. It was as keen as a sabre of the finest steel.

They approached so close, that if they had discharged their arrows MENDANA. and darts, every one must have taken place. But as they continued to march forward, notwithstanding the signs made to them to retire, the general ordered his people to fire some musquets upon them. One Indian was killed; and fear occasioned the rest to betake themselves to flight. The Spaniards then advanced to a village, and inspected it. They found there as great a quantity of cocoas-nuts and almonds as would have loaded a ship; and they employed the remainder of the day in transporting refreshments for those of the crews who had remained on board. When night came on, they re-imbarked with their booty, and the islanders did not venture to molest them in their retreat. The harbour of the island of *St. Christopher*, where the fleet then lay, is in eleven degrees of south latitude. The island is narrow and mountainous.

1567.

The brigantine was dispatched a third time to extend her discoveries. She fell in with two islands, divided by a channel of three leagues. The first received the name of *Santa-Catalina* (St. Catherine); the second, that of *Santa-Ana* (St. Anne). This latter is low, and of a round form: in the middle rises an eminence, which has the appearance of a castle. It is fertile, and well peopled, and hogs and fowls were found in it; the eastern part affords a good harbour. When the Spaniards landed, they were immediately surrounded by Indians, who were armed with many darts, had arrows, and gave great shouts. Their bodies were painted of different colours, their heads adorned with boughs of trees, and their loins girded with a kind of scarf. They attacked the Spaniards boldly, and in the first discharge wounded three. A great idea was conceived

MENDANA. conceived of their strength. One of them threw a dart with such
 1567. fury against the commander of the detachment, that it pierced his
 buckler, and transfixed his arm, passing entirely through, and stand-
 ing out beyond it several inches. They fired upon these Indians,
 and killed two; the rest were frightened, and dispersed. The de-
 tachment then reembarked, and the vessel rejoined the fleet, having
 first coasted along the island of St. Christopher. The chief pilot re-
 ported, that they had not discovered any other land on this side,
 but was fully assured, that on the west, they could not fail to meet
 with one of very great extent.

The general now assembled the captains and pilots in council, to
 deliberate on the situation of the fleet, and decide upon his further
 operations. It was agreed that the bad state of the rigging and
 cables, and the want of provisions, would not allow them to push their
 discoveries to a greater extent; and that they should take their
 course into a higher latitude, and regain the coast of America by the
 north. They repaired the vessels as well as their circumstances
 allowed, and the fleet put again to sea.

They were seven days beating up along the island of St. Christopher;
 and then, directing their course towards the north, after having met
 with much contrary weather, and made some discoveries of little
 importance, in want of provisions and water, and in part dismasted,
 they at last made the coast of Peru in the beginning of March 1568.
 Thus was terminated the most memorable voyage that the Spaniards
 had undertaken since the discovery of the New World, which gave
 rise to so many fables, with which their historians have amused
 Europe for more than a century.

Description of the Islands of SOLOMON.

EXTRACTED FROM HERRERA.

THE Spanish writer who has given us the most exact account of this first voyage of *Mendana*, next to *Figueroa*, is *Antonio de Herrera*. We will extract what he says of it in his *Description of the West Indies* [u].

MENDANA.

1567.

The *Islands of Solomon* are situated between the seventh and the twelfth degree of south latitude, fifteen hundred leagues distant from the city *de los Reyes* (of the kings; that is, *Lima*). They owe their name to the opinion conceived of their riches. They are called also *Western Isles*, by way of eminence, being situated to the west of Peru, where the fleet of *Mendana* [x], by which they were discovered, was fitted out, in 1567. They are no less remarkable for their number than their extent. Eighteen principal ones are reckoned, some of which are 300 leagues in circumference, two are of 200, one of an 100, one of 50, and others smaller; besides which,

[u] *Descripcion de las Indias Occidentales, de Antonio de Herrera, &c. en Madrid, en la Oficina real de Vic. Rodrig. Franco. Ano de 1730 in fol. pages 59 and 60. The copy we have now before us makes part of the collection of the Spanish historians of the West-Indies, known by the name of Barcia's collection.*

[x] In the original it is *Mendoça*: it is an oversight of *Herrera*, or a fault of the copy, repeated in the impression.

D

there

MENDANA. there are several, the coasts of which have been traced but imperfectly.

1567.

It is presumed that they extend to *New Guinea*. The air is salubrious, the soil fertile and habitable, offering various productions fit for the support of men: even cattle is not rare. Hogs and fowls are found there, and some fruits, not different from those of Castile. They are very populous, and their inhabitants appear to belong to different races, some are tawny like the Indians, others white, others red, and copper coloured, and some perfect negroes. These diversities of species, announcing a mixture of different races, sufficiently indicate that these islands are contiguous to *New Guinea*, whence the inhabitants of them have had communication with those of the Spice Islands.

Some of them deserve a particular notice. The island of *Santa-Ysabel*, lying between the eighth and ninth degrees of south latitude, is 150 leagues in length, by about 18 in breadth. It has a good harbour, which was named *Estrella*. *San Jorge*, or *Borbi*, a league and a half from *Santa-Ysabel*, is 30 leagues round; and *San-Marcos*, or *San-Nicholas*, to the south-east of the same island, is 100. Continuing to refer their situations to *Santa-Ysabel*, we find to the south, the island of *Arracifes*, of the same extent as *San-Marcos*; to the west *San-Geronimo*, 100 leagues in circumference; to the south-west *Guadalcanal*, the largest of all these islands; and to the east, *Buena Vista*, *San-Dimas*, and *Florida*, each 20 leagues in circumference. To the east of *Florida* is the island of *Palms*, 200 leagues round; near this *Malaita*; *La Atreguada*, of 30 leagues; *Las tres Marias* (the three Maries) three small islands, which appear to form but one; *Santiago*, 100 leagues round, to the south of *Malaita*.

The

The island of *San-Juan*, of 12 leagues, between *Santiago* and the *Arracifes*. To the south-west of *Malaita*, and of the same extent, the island of *San-Christoval*; and very near the latter, two small islands, *Santa-Ana* and *Santa-Catalina*: the small island *El Nombre de Dios*, (the name of God) distant from the former 50 leagues, and situated in seven degrees of south latitude. Lastly, in the same latitude, and to the north of *Santa-Ysabel*, the shoals called *Baxos de la Candelaria*, (*Candlemas Shoals*).

MENDANA.

1567.

SECOND VOYAGE

OF

ALVANO DE MENDANA,

IN M.D.XCV.

ENDEAVOUR TO FIND THE ISLANDS OF SOLOMON AGAIN, AND
DISCOVERY OF THE ISLAND OF SANTA-CRUZ.

(See Charts I. and IX.)

SOME years elapsed before the government of Peru took up the project of forming an establishment at the islands of Solomon; but this idea became in favour again in 1595, and a fleet of four vessels, carrying about 400 men, was fitted out, under the

MENDANA.

1595.

MENDANA. command of *d'Alvaro de Mendana*. *Dona Ysabel de Barretos*, wife
 1595. of the general, and his three brothers-in-law, accompanied him in
 this expedition. *Pedro Fernandez de Quiros* was named first pilot of
 the fleet. The design was to establish a colony in the island of *San-
 Christoval*, which would be an advantageous situation for carrying
 on researches in the southern hemisphere, and finally discovering
the Southern Continent, the object of all wishes, the aim of every
 enterprise, the existence of which was thought to be demonstrated,
 and the most brilliant expectations conceived of its riches.

The particulars of this voyage having only an indirect reference
 to the plan of our work, we will content ourselves with giving a
 short extract: and we will hasten to the island of *Santa Cruz*, which
 closed the expedition, and may be considered as making a part
 of that vast Archipelago, which is situated to the south-east of *New
 Guinea* [A].

The fleet of *Mendana* sailed from *Callao* the 11th of April, 1595.
 It put in for a time on the coast at *Cherrepe*, the harbour of the

[A] We have two narratives of this voyage: the first is contained in a letter of
Quiros to Doctor *Don Antonio Morga*, lieutenant-general of the Philippine Isles, and
 afterwards president of the audience of Quito. It was inserted in a work which
Morga published at Mexico, in 1609, under the title of *Sucesos de las Islas Philipinas*,
 chap. vi. p. 29. The second was given by *Figueroa*, in the work already cited.
 Libro sexto, p. 238 et seq. Mr. Alexander Dalrymple has blended the two accounts
 into one. See his *Historical Collection*, &c. Vol. I. p. 57, &c. See also *ibid.* p. 185,
 &c. In 1767, M. Pingré gave an extract in French, in his *Memoir for the Transit of
 Venus*, in June 3, 1769, p. 30 to 47.

city

city of *Santiago de Miraflores*, and then at that of *Payta*, to complete in the one its crews, and in the other its stores. They quitted the latter port the 16th of June, and sailed W. S. W. till they came to nine degrees and a half of south latitude: then they steered W. $\frac{1}{4}$ S. W. till they had reached the 14th parallel, and then W. $\frac{1}{4}$ N. W. The 21st of June, (St. Magdalen's day) being 1000 leagues from the coast of Peru, the observation of the sun at the meridian, informed them that their latitude was $10^{\circ} 50'$, and the evening of the same day they came in sight of the island which first showed itself in the N. W. $\frac{1}{4}$ N. at the distance of ten leagues. Thinking themselves now at the end of their search, they sung *Te Deum*.

MENDANA.

1595.

They found this island inhabited, but *Mendana* declared that it was not one of those to which they were bound. It was named the island *De la Madalena*. It has a harbour on the south side, in latitude 6° south.

Soon after, three others were discovered: the first, which they called *San-Pedro*, 10 leagues N. $\frac{1}{4}$ N. W. of *la Madalena*; the second, *la Dominica*, north-west of *San-Pedro*; and the third, *Santa-Christina*, to the south of the second. The port of *Santa-Christina*, situated on its western side, in $9\frac{1}{2}$ degrees of latitude, was named *de la Madre de Dios*, (of the mother of God) and the whole groupe received the name of *Las Marquesas de Mendoza*, in honour of the governor of Peru [B]. The Spaniards lived in a tolerable good

[B] These islands were visited in 1774 by Capt. Cook, and we can only refer to his account of his voyage for whatever concerns their true situation, inhabitants, productions,

MENDANA. good understanding with the inhabitants of these islands ; they only
 1595. thought themselves necessitated, in particular circumstances, to kill
 a few of them for their own safety. They obtained from them
 water, wood, and some refreshments.

On the 5th of August the fleet quitted these islands, and continued to sail westward [c] : having run 400 leagues, they discovered four low islands, having sandy shores, and covered with palms, and other trees. These four islands are disposed in a square, and occupy altogether a space of about eight leagues in circumference. (The letter of Quiros to doctor Morga, gives them 12). A sand-bank, which is stretched before them from the south-west by the north, and towards the east, prevents access on these parts ; and an elevated rock is seen upon the point of the reef, which stands towards the south-west. Some attempts were made to find anchorage ; but the project of landing upon these islands was soon after abandoned, and they left them without having had an opportunity to learn whether

productions, &c. Cook anchored in the port of *la Madre de Dios*, which he named from his own ship, *Resolution Bay*. He fixed its latitude at $9^{\circ} 55' 30''$ ($25^{\circ} \frac{1}{2}$ more than Figueroa makes it), and its longitude at $139^{\circ} 08' 40''$ W. from Greenwich, or $141^{\circ} 28' 40''$ W. of Paris. See a Voyage towards the South Pole and round the World, by James Cook and T. Furneaux, Vol. I. p. 298, &c. Captain Cook saw at five leagues to the north of the eastern part of *la Dominica* a small island not mentioned in any of the Spanish accounts, which he called *Hood's Island*.

[c] Mendana declared, that on the fourth day they would descry the islands of Solomon. One does not see what his calculation could be. He supposed these islands 1500 leagues from the coast of Peru : he reckoned that he had sailed but 1000 when he fell in with those of *Mendoga*. How could he hope to make 500 leagues in four days !

they

they were inhabited. They gave them the name of the islands of *San-Bernardo* [D], from the saint of the day when they were first discovered. Figueroa places them in $10^{\circ}\frac{1}{2}$ of latitude, and 1400 leagues from *Lima*. MENDANA.
1595.

They continued their route towards the west: and, in conformity to the orders of Mendana, who had recommended to them not to go so low as the 12th degree of latitude, nor so high as the 8th, kept within the 10th and 11th parallel. The 29th of August, being in $10^{\circ} 40'$, and at 1535 leagues from the coast of Peru, they perceived a small low island, round, and covered with trees; it was a league in circumference, and surrounded by a reef, which prevented any approach. It was named *la Solitaria* (the Solitary).

They began now to be very impatient, and murmurs were beginning to break out among the crews of the fleet, when, on the 7th:

[D] The islands of *San-Bernardo* were seen again in 1765, by Commodore Byron, who named them *Islands of Danger*. The reef which surrounds them prevented his landing: they appeared to him very populous, very fertile, well cultivated, and more beautiful in appearance than any of those he had seen in the Great Ocean. He saw a great sailing war canoe, which was making sail along the coast. According to him these islands are situated at $10^{\circ}\frac{1}{4}$ of south lat. and $169^{\circ} 28'$ to the east of Greenwich, or $171^{\circ} 48'$ east of Paris; which are reduced to $168^{\circ} 50'$ west of the latter meridian, taking into account the error of his course. It is surprising, that Commodore Byron should have taken these islands for a part of the *Islands of Solomon*, which were always regarded as near New Guinea, 40 degrees further west than the *Isles of Danger*. It is true that some geographers have placed them much further west, but this position is without all support, and contradicts every account of the voyage of *Mendana*. See *Hawksworth's Account of the Voyages, &c.* Vol. I. p. 109.

MENDANA. of September, in the night, a large tract of land was discovered.

1595.

The second vessel parted company in a violent drift of rain and wind, and was never heard of again. At sun-rise the land was descried, which appeared very extensive. They ascertained, afterwards, that it was an island of, perhaps, ninety or one hundred leagues in circumference. To the North of this island, distant eight leagues, was seen another, remarkable for a volcano, which flamed continually. To the North-East of the Volcanic Island, distant seven or eight leagues, are several small inhabited islands, encompassed by a reef. Several other great islands were also discovered round the principal one; and to the S. E. others of smaller size: both kinds were inhabited.

We will not enter into any detail of the events which succeeded, during the sixty-nine days that the Spanish fleet passed upon the coasts, or in the harbours of *Santa-Cruz*. *Mendana* had met with opposition from the inhabitants of the island, in the first attempts he made to land, and during his continuance in the first ports where he had anchored: he found a better reception at *Bahia Graciosa*.

This Bay, 1850 leagues from Lima, in $10^{\circ} 15'$ South latitude, is situated on the North-Western side of the Great Island, to the South of the Volcanic Island, and formed by an opening in the main land, covered by a small island, which, for its wonderful fertility, was named *la Guerta* (the Garden).

Bahia Graciosa, according to the Narrative, seems to offer several harbours. It was in one of these that *Mendana* began to form an establish-

establishment. The natives, who had learnt, to their cost, the superiority of the Spanish arms, soon ceased to oppose their design. They lived some time on good terms with them. The chief of this island, named *Malopé*, had even declared himself the friend of *Mendana*, and had asked him to exchange names, as a mark of brotherly attachment. But this harmony was not of long duration. The Spaniards, suspecting that the natives were meditating an attack [c], thought themselves obliged to be before-hand with them, and made a descent in arms. They were, in fact, assailed as they disembarked; but the musquetry very soon triumphed over arrows and stones. They burned villages, ravaged the country, and abandoned themselves to excesses, which alienated, for ever, the minds of the islanders. The influence of *Mendana* over their chief procured, however, a kind of accommodation. Their exchanges were renewed, confidence was re-established, and peace seemed confirmed; but a new act of violence, an unpardonable violation of the sacred rights of hospitality, completely broke the feeble ties by which the savages were restrained. Some Spanish soldiers treacherously killed the good *Malopé*, chief of the island, the friend of his subjects, the friend of *Mendana*. From this moment all commerce ceased, all communication was cut off, all assistance withheld; the islanders thought of nothing but vengeance. At the same time broke out a dissention, which had before shown itself among the principal officers: they divided themselves into parties: the crews proceeded rapidly from murmurs to actual mutiny; and *Mendana* found himself

MENDANA.

1595.

[c] This premeditated treachery, on the part of the natives, is not proved. According to one of the Narratives they only attacked the Spaniards to revenge the death of their chief, *Malopé*.

MENDANA.

1595.

obliged to punish the first movers of it. Two of the principal officers were beheaded, and a third was hanged. The mortification which the General felt from the bad success of his enterprise, finally exhausted his constitution, already weakened by the fatigues of his two Voyages, and he died before the fleet departed hence. *Donna Ysabel de Barretos*, his widow, succeeded him in the command, and put to sea in order to make further search for the *Islands of Solomon*. She convened the pilots of the fleet, of whom *Quiros* was the chief, and consulted them upon the route which they must keep to find the island of *San-Christoval* again, the largest of the eastern isles. Their advice was, unanimously, that the search must be made on the eleventh parallel, but it was without effect; and, after some days sailing, they took their course to regain the coasts of America.

The natives of the island of *Santa-Cruz* are as black as the negroes of Africa. They all have woolly hair, which they stain of different colours. Their faces and bodies are tattaowed. Their only covering is a leaf of a certain tree. On their necks, and round their arms and bodies, they wear various ornaments, made of the teeth of fish, of mother of pearl, and other shells. Their arms are the bow and arrow; the sword of hard wood, stones, darts, and spears. Their canoes are of two kinds: the one, which is made only of trees hollowed out, serves for navigating on the coast; the other, larger, and coupled together, is used for transporting them from one island to another, and in making war.

The country is fertile and very populous. The soil abounds in roots of three or four kinds, all equally adapted for the food of man,

Six

Six or seven species of bananas are found there, abundance of cocoa-
trees, several kinds of excellent almonds, nuts, chestnuts, a sort of
apple, sugar-canes, bread-fruit, which the Spaniards called *blanc-*
manger fruit, and another tree, producing a cone as large as a man's
head, the seeds of which might be compared, for form and size, to
Spanish almonds. Ginger seemed a native of the island. Hogs are
very common. Geese, fowls, partridges, ring-doves, and turtle-
doves*, are very abundant. There were also white and grey herons,
swallows, and many kinds of birds not known in Europe. The
coasts afford great plenty and variety of fish. Nor were there any of
those troublesome and noxious insects that are the general plague of
islands in the torrid Zone. In a word, the island of *Santa-Cruz*, and
others of the same group, offer the most valuable resources to navi-
gators who may be traversing the Great Ocean, to the South of the
line.

MENDANA.

1595.

[D] They perch on the trees, and live wild.

THE

VOYAGE

OF

PEDRO FERNANDES DE QUIROS,

AND

LUIS VAES DE TORRES,

IN M.DC.VI.

DISCOVERY OF TIERRA AUSTRAL DEL ESPIRITU SANTO.

(See Charts I, and IX.)

QUIROS.

1606.

THE Spanish Historians are not agreed about the object of the Voyage of *Quiros*. Some suppose that Philip III. had a design to have the route tried between America and Spain, by the East-Indies, to arrive this way at the Spice Islands, and to occasion the discovery of other islands between New Guinea and China, to which a tradition of uncertain origin attributed immense riches. Others have presumed, with more appearance of probability, that as the latter Voyage of *Mendana* had given a great idea of the fertility of *Santa-Cruz*, and occasioned the hope of being able to subdue its inhabitants, it was proposed, that an establishment should be fixed there, which would give them a point of rest and refreshment, whence they could, with more advantage, push their discoveries to the South, and proceed in the search of this southern continent, whose existence was vouched

vouched by *Quiros*. It would, however, be foreign to our purpose to discuss the object of their voyage; it will be sufficient briefly to state the result of it [A].

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The fleet of *Quiros*, consisting of two vessels and a light frigate, the best constructed and armed of any that had been seen in those seas, sailed from *Callao* the 21st of December, 1605, directing its course South-West and East*, to the distance of 1000 leagues from the coast of Peru, without falling in with any land.

At this distance, and in 25° South latitude, they discovered a small flat island, almost even with the water-mark, which seemed to be about four leagues round. It is properly only a sand-bank, on which grow a few scattered trees: no bottom was found, nor any anchorage upon the coast. It was thought that it could not be inhabited; and was named *La Incarnacion* [B].

[A] We shall extract this short account of the Discoveries of *Quiros*, from the full narrative given by *Juan de Torquemada* in his *Monarchia Indiana*, Part I. B. v. ch. 44, &c. p. 738, in the Madrid edition of 1723, making part of the Collection of *Barcia*.

There is also an abridged translation of it in the *Voyages to the Southern Countries*, by the *President de Brosse*, Vol. I. B. III. p. 306. and another in English in the *Historical Collection*, &c. of Mr. A. Dalrymple, Vol. I. p. 103, &c. In 1767, M. *Pingré* gave an extract in French in his *Memoire pour le Passage de Venus*, &c. p. 48 to 60.

* Can this be right? Tr.

[B] *Torquemada* does not report the names which *Quiros* gave to the several islands he discovered; but they were named in one of the Memoirs which he presented some years after to Philip III. This Memoir is found in the original, in *Purchas his Pilgrimes*, Vol. IV. p. 1427.

Conti-

QUIROS.

1606.

Continuing their course to the West, they discovered and named different islands, of which we will give a list in the order of the discoveries.

San-Juan-Baptista, two days and a half sail from the former, a high but level island, about twelve leagues in circumference, on which they could not land.

Sant-Elmo, six days from the preceding, thirty leagues in circumference, surrounded by a coral reef, the middle of which is filled by the sea. No place fit for debarkation was perceived, nor was any bottom found in approaching it [c].

Las quatro Coronadas, four inaccessible islands, one day's sail from *St. Elmo*.

San-Miguel, four leagues W. N. W. from the latter; it is ten leagues round; lies North and South, and seems equally [d] inaccessible.

[c] Mr. Dalrymple, after *Arias*, places *San-Juan-Baptista* in 26 degrees of latitude; and *Sant-Elmo*, after *Ulloa* and *Diego de Cordova*, in 28°. *Historical Collection*, Vol. I. p. 5. of *Data*.

[d] Captain Carteret supposes, that his Duke of Gloucester's Islands, which he saw in the latitude of 20° 38' and 20° 34', might be among those seen by *Quiros*. — See *Hawksworth's Voyages*, Vol. I. p. 563.

La

La Conversion de San-Pablo (the Conversion of St. Paul) W.N.W. QUIROS.
of *San-Miguel*, half a day's sail from it, and also inaccessible. 1606.

Four days from the *Conversion de San-Pablo*, in $18^{\circ} 40'$ South latitude, they discovered an island to the North-East. It lay to the windward [E], and an attempt was made to approach it. It was called *La Dezana*, that is, *number ten*, doubtless, because it was the tenth they had discovered.

It rained all day and night till the next day, the 10th of February, when, to the great satisfaction of *Quiros* and his fleet, the watch at the main-mast-head cried out "*land a-head*." Their joy increased when they saw, from every part of the island, clouds of smoke arising, which gave them full assurance that it was inhabited. They bore down to the land on the northern side; but finding no harbour on this coast, the *Capitana* [F] endeavoured to beat up against the wind and pass along the island again, but in vain. Finding that the vessels continually fell to the leeward, they determined to get under shelter of the land, and there lie to. *Quiros* then detached the *Zabra* [G] (the Brigantine) to look for a

[E] *Torquemada* marks only the latitude of the vessel. The island to the windward might be seen at the distance of 10 or 12 leagues, and might be to the North of the vessel 30 or 36 minutes. Besides which, it is not said that an observation of the latitude was taken.

[F] In the ancient Spanish accounts, the vessel in which the Commander of the Expedition sailed, is always called *La Capitana*; and that of the second in command, *Almiranta*, though the fleet consisted only of two ships.

[G] *Zabra*, or *Cabra*, as *Torquemada* writes it, is a kind of brig, or light frigate, used in the Biscayan Sea.

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port, while the two other vessels lay along-side of each other in sight of the land. The *Zabra* cast anchor near the coast in ten fathoms, stones and coral. The Commander then gave orders to man the armed boats, and they made to shore. As they approached the land, the Spaniards saw an hundred Indians inviting them, by signs of amity, to land and go to them; but it was not practicable to make good their landing, the waves broke with such fury upon the rocks, which encompassed the island, and formed a rampart to the land, that all their efforts proved ineffectual. The enterprise was abandoned with the more regret, as the fleet began to be in want of water, and they had come to the melancholy resolution of returning, when a young sailor, full of fire and courage, braving the danger, and generously devoting himself for the honour of the expedition, and the preservation of his companions, stripped off his clothes, threw himself into the sea, and swam to the rocks. The name of this young hero, which deserves to be recorded, was *Francisco Ponce*, a native of *Triana*. The Indians, struck by this act of courage, went into the water to his assistance, took him in their arms, embraced him affectionately, gave him a thousand kisses on the forehead, and received him with all manner of caresses, which his gratitude abundantly returned. His example was soon imitated by several Spaniards, who passed the breakers, and were received by the Islanders with the same testimonies of sensibility and affection.

These brave savages were all armed: some carried lances of twenty-five or thirty palms in length; some a sort of sabres, and others strong clubs: all these arms were of wood. They were entirely without clothing; their skin tawny, their bodies well proportioned, and

and their stature good. Their habitations were scattered irregularly on the sea-shore, among palms and other trees, which abounded in the island. On the fruits of these, together with the produce of their fishing, the inhabitants subsisted.

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When night came on the Spaniards swam back to their boats: some Indians followed them, and were treated with those marks of friendship which their generosity deserved: presents were also added; but they could not ever be prevailed upon to go on board the *Zabra*; instead of that, they plunged into the water in order to return to shore.

During the night the vessels drifted considerably, and at eleven in the morning had lost eight leagues, but were still within sight of land; they were now assured that it was inhabited, and had hopes of being able to water there. They sent out the boats to seek for a river; and as the appearance of the shore gave no promise of anchorage, the vessels lay-to along-side of each other. The waves broke upon the coast with such violence, that it was impossible to attempt making the rocks without hazarding the loss of boats and men; the sailors therefore threw themselves into the water, and by dint of industry and efforts, were enabled to raise their vessels, and fix them on some rocks which were dry at low water.

Having thus secured their cutters, the Spaniards visited two small woods of palms, cocoas, and other useful trees which were near the place where they had landed: but all their endeavours to discover fresh water were fruitless. They came at length to a small meadow

F

where

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1606.

where the soil was moist ; here they dug wells, but the water proved brackish. Their trouble was a little recompensed by the ease with which they procured an ample provision of cocoa and other nuts. With these they allayed their hunger and their thirst at pleasure : and every man loaded himself with as many as he could carry, for his comrades, who remained on board the ships. To regain the place where they had landed, they marched about half a league, and in the passage had the water up to their knees, because the sea, flowing full in, with great impetuosity, had risen above the rocks surrounding the island, overflowed the shore, and reached as far as the small mountains. At the point of high tide it communicates and mixes with the sea on the other side of the island, by a shallow sandy channel, which separates the two small woods visited by the Spaniards.

Their difficulties were renewed when they were to re-embark ; for with their load of nuts, cocoa-nuts, and their arms, they could not swim back to their vessels. But God, who never abandons those who devote themselves for the glory of his name, enabled them to discover, when they least expected it, a passage between the rocks ; there they got in the boats, and brought them so near to land, that they could all embark without wetting their feet.

They carried back with them an old Indian woman whom they had met with in the woods : she made no difficulty of going aboard the ships, where she was feasted, clothed, and well treated ; and accepted, with an air of satisfaction and gaiety, whatever was presented to her.

The

The boats were sent again to land. The old woman now acted as guide to the Spaniards, and made them understand, by signs, that on the other side of the island they would find inhabitants. They accordingly followed her, and quickly gained the opposite coast; where they were no sooner arrived, than they perceived, at sea, five or six canoes, with sails cut like latteen sails, and made up of leaves of the palm. When the Europeans came in sight the vessels made for the shore, the Indians in them soon leaped upon land, drew their canoes after them, and advanced to meet the Spaniards. As soon as they perceived the old woman, they ran to her, embraced her, and could not satisfy themselves with admiring her clothes. They also embraced the Spaniards, and gave them every mark of affection. They were desired, by signs, to show which was their chief; on which they pointed out a man of large stature, whose air was noble, his appearance robust, his form square, his limbs stout and well proportioned, and all his muscles strongly marked. He wore upon his head a kind of crown made of small black feathers, so fine and supple that they might have passed for silk. Long flaxen hair, in a kind of half curl, fell down to his waist, and excited much admiration in the Spaniards, who could not conceive that a man, whose complexion was far from fair, could have hair so very light; and therefore chose rather to believe that he was married, and wore the hair of his wife. They persuaded him to go on board the Commander's ship, and several Indians went with him into the boat; but they had scarce put out, when apprehending, doubtless, some treachery from the Spaniards, they threw themselves into the water, and swam back to shore: their chief would have followed them, and it was only by mere force that they were able to detain him. The

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QUIROS. boats soon reached the vessel, but the chief could not, by any
 1606. means, be persuaded to go on board. The commander ordered refreshments to be given him in the boat, and gave him clothes and other presents. He was now fed, clothed, free and contented, and they hastened to carry him back to land, because they feared, with reason, that the Indians, enraged at the carrying off their chief, might revenge themselves upon some Spaniards who had remained upon the island. The return of the boat disarmed their anger; a good understanding was speedily restored; and, in sign of peace and friendship, the chief of the Indians taking from his head his crown and plumes, and testifying by signs that he had nothing more precious to give, presented it to the officer who commanded the boats.

The Spaniards having approached the shore with the Indians, who were going back to their canoes, learnt of them that they were not inhabitants of that island, but belonged to another, to which they were returning. The Spaniards concluded from this, that they were in the right track for some extensive country, and in token of rejoicing, fired a volley of musquetry, at which the Indians were much alarmed. Soon after, they returned to their vessels.

The ships stood off all night; and the following day, the 12th of February, they coasted along the island, to the north-west point, the latitude of which they determined, by an observation of the sun, to be $17^{\circ} 40'$. This island they called *la Sagitaria* (the *Sagitary* [H]).

Departing

[H] Every thing tends to make it credible, that the *Sagitaria* of Quiros is the island of *Otaheité* found again, and visited by all the modern navigators: and that the

Dezana

Departing from *Sagitaria*, and continuing his route, Quiros discovered the islands following.

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La

Dezana is the *Osnaburg* of *Wallis*, the *Boudoir* of *Bougainville*, and the *Maitea* of *Cook*. The geographical position of these two islands, with respect to each other, affords the first proof, and another appears in the conformity which is found in the particulars extracted from the account of *Torquemada*, and those in the narrative of *Cook*.

The *Sagitaria*, according to Quiros, is a day's sail from the *Dezana*, and bears W. and W. N. W. According to modern voyagers, the south-east point of *Otaheité* is 31 or 32 leagues (of 20 to a degree) from *Maitea*, which is about a day's sail: and this point is situated nearly on the same parallel, only a little more to the north than the island of *Maitea* (or *la Dezana*), which Quiros left to windward. Therefore setting out some leagues to the south of the former, the W. and W. N. W. course should lead to the highest point of the latter.

We judge, from the recital of *Torquemada*, that Quiros came to land on the southern coast of *Sagitaria* (*Otaheité*), and that he passed to leeward of the island, because it is said, that in the night of the 10th, he had lost eight leagues by the current, but that, notwithstanding, he was still within sight of the island at eleven in the morning, and that he returned near enough to send his boats again, while the ships lay-to together. The details relative to the topography of the country, mixed in the narrative of *Torquemada*, with that of this second landing, are surprisingly similar to those of the same kind reported in *Cook's Journal*. We see there, from the description given of *Otaheité*, by the English navigator, who had gone entirely round it by land, or in a boat, that it is composed of two peninsulas; the largest *O-Pou-reonu*, or *Otaheité-Nue*, forming the north-west part, the smaller *Tiarrabou*, or *Otaheité-Ete*, which is the south-east. These two peninsulas, which are round, mountainous, and elevated in the middle, are united by an isthmus of low land, not above two miles across. Cook says, it is a marshy plain, situated between two bays, along which the Indians transport their canoes from one side of the island to the other. There can be no doubt that it was in the southern bay, between the two peninsulas, that the Spaniards landed the second day.

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La Fugitiva, two days and a half from *Sagitaria*. Seen to the north-east; but, as the fleet was too much to leeward, they did not attempt to touch there.

day. It is said, that after their expedition, being desirous to regain the shore on which they had landed, they marched for half a league with the water up to their knees; because the two seas are united (along the isthmus) when it is high tide.

The rocks, which form a kind of rampart before the island, and between which, passages are found for coming to land, as distinguished in *Cook's* narrative, and represented in his chart, are denoted as clearly as possible in the account of the historian *Torquemada*; and it is evident, that the Spanish boats, on the second day, discovered one of these passages, and found it very easy to land. This peculiarity of rocks, forming a calm channel and ports between them and the shore, is a new proof of the identity of *Sagitaria* and *Otaheité*.

Finally, the latitude of the north-west point of *Sagitaria*, which Quiros found by observation $17^{\circ} 40'$, differs very little from the latitude of north-west point of *Otaheité*, which *Cook's* chart places in $17^{\circ} 33' \frac{1}{2}$. This difference is certainly much less than is usually found in comparing the latitudes observed by ancient voyagers with those made of the same points in more modern times. See *Hawksworth's Voyages*, Vol. II. p. 156.

Since writing the above note, we have seen, in *Forster's Voyage*, that this learned writer suspected the identity of *Otaheité*, and the *Sagitaria* of Quiros. His opinion must add weight to ours. He says it is probable, that the original discoverer of this island was the Spanish navigator *Pedro Fernandes de Quiros*, who sailed from Lima in Peru, the 21st of October, 1605. The 10th of February following, he fell in with an island, which he named *Sagitaria*, and which seems to have been *Otaheité*. He found no harbours on the southern side which he approached, but the men he sent on shore were treated with the greatest marks of friendship and kindness. *Forster's Voyage*, 1777, Vol. I. p. 250.—N. B. The French edition of *Busching*, in octavo, asserts the same thing. Tr.

La

La Isla del Pelegrino, (*Pilgrim's Island*) a day's sail further. They left this also to windward, and proceeded to the west.

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On February 21, land was seen a-head; six days after losing sight of *Pelegrino*. The *Zabra* was detached to reconnoitre this new island more closely, and anchored on the coast in a bad harbour, where the ships could not lie with safety. *Isla la San-Bernardo* [1], which was the name given to this island, lies north and south, is 10 leagues in circumference, very flat, and the middle of it filled by a salt-water lake, as had been seen in some others. The boats were sent out in hopes of getting water; but they searched in vain for it, and only met with great quantities of cocoa-nuts. The fish which abounded on the coasts, and the birds, which were also very numerous, suffered themselves to be caught by hand. It was supposed to be inhabited*. Its latitude, by observation, was about $10\frac{1}{2}$ degrees south.

From this island they proceeded all night under very little sail, because the wind blew fresh in their stern, and the great number of birds that passed them, proved that land was near.

[1] This island of St. Bernard must not be confounded with other islands of the same name, four in number, which Mendana discovered in 1595. (See p. 23). Quiros, in one of his memorials, presented to Philip III. makes no mention of the island *San-Bernardo*, and calls that which he discovered next after *Pelegrino*, *Nuestra Senora del Socorro*.

* The tameness of the animals seems to prove irrefragably that it was not. Tr.

On

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On the 2d of March, seven days after leaving *San-Bernardo*, land was discovered to the west. It was an island six leagues round, which offered but a bad anchorage. The boats, with difficulty, landed; and one of them was actually overfet in one of their visits, and the crew with difficulty saved. This natural obstacle was probably not the most obstinate that existed there; they found the island inhabited by a warlike people, that opposed them in every enterprise. In different skirmishes, several Indians were killed, and some of the Spaniards wounded, so that after some unsuccessful attempts, they were obliged to abandon this island, without obtaining water or refreshments. The Spaniards had never seen men so handsome, or met with enemies so formidable as the inhabitants of this island. They speak particularly with enthusiasm of the beauty, fairness, and studied dress of the females, who, according to their accounts, surpassed the fairest Spanish ladies, both in grace and beauty. This island was called *Isla de la Gente hermosa*, (the Isle of Beauties) [κ]. It must be situated in the 11th degree of latitude, for the account says, that it is on the same parallel with the *Santa-Cruz* of *Mendana*, which is so.

The design of *Quiros* was to put in at the last mentioned island, the resources of which he had experienced, and with this view he directed his course westward. After 33 days navigation, in the afternoon of March 7 *, they discovered from the mast head of the

[κ] *Quiros*, speaking of this island, in his memoir to the king of Spain, does not call it *Isla de la Gente hermosa*, but *Isla de Monterey*, from the name of the Viceroy of Mexico.

* N. B. Only five days from the *Isle of Beauties*. Tr.

principal ship, a high and black island, having the appearance of a volcano, and lying W. N. W. They could not reach it till the 9th, and, in order to get to shore, the boats were obliged to pass among several small islands, which at a distance seemed like one. They lie on the western side of the main island, but far enough from it to leave a channel capable of receiving ships. In this harbour the fleet anchored in 25 fathoms. At no great distance, and within the reef, a small islet was observed, not more than five or six feet above the level of the water. It was formed of stones and coral, and seemed to be the work of man. They counted there 70 houses, which were covered with palm leaves, and hung with mats within. The islanders gave them to understand, that it was a retreat for them, for the sake of security and defence, when the inhabitants of the neighbouring islands came to attack their possessions; and that they, in their turn, invaded their neighbours in strong and large canoes, in which they could with safety commit themselves to the open sea. The Spaniards had therefore sufficient information that there were many more islands, in the neighbourhood of that on which they had landed.

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This island abounded with bananas, cocoa trees, and palms: it produced also sugar canes, and many kinds of nutritive roots. The fleet here obtained, without difficulty, refreshments, water, and wood, of which it stood in great need. The Spaniards lived on good terms with the natives, who were eager to procure them all the assistance that their island afforded; nor was peace infringed till the very moment of their departure. Thinking that it would be of service, in the remainder of their voyage, to have some Indians on board,

G

who

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who might act as guides or interpreters, the Spaniards seized four, whom they carried on board by force. Their chief was soon informed of it, and came to demand them in the most earnest manner; but they were refused, and war was instantly declared. A fleet of canoes came out to attack the Spanish ships, which their fire arms quickly dispersed, and would totally have destroyed, had not these brave islanders, with all their courage, been sensible of their inferiority. Thus the thunder of European artillery made good the right of the Spaniards; but force by no means gives a sanction to base treachery.

According to *Arrias*, this island, called by the natives *Taumaco*, or *Taumago*, is eight or ten leagues round, lies in six degrees of latitude, and 1700 leagues from Lima [1]. He reports a circumstance not mentioned in the narration of Torquemada. According to this account, the cacique, or chief of the island, signified to *Quiros*, in a manner perfectly intelligible, that, if he wished to discover a great continent, he must look for it in a latitude more southern than 11 degrees, (which is that of *Santa Cruz*) and that if he directed his course southward, he would find a large country, very fertile and populous, extending itself still further to the south.

Quiros, in one of his memorials presented to the king of Spain, confirms this report. He says, that having conversed as much as he could by signs, with *Tunay*, the chief of *Taumaco*, whom he describes and praises, he learnt of him the name of about sixty islands, not far

[1] *Quiros*, in a memorial, addressed to Philip III. says, that it is 1250 leagues from Mexico.

distant from *Taumaco*, and the existence of a large country called *QUIROS*.
Manicolo. *Tumay* informed him, by referring him to the points of
sun-rise and sun-set, that he knew islands or countries to the S. E;
S. S. E; W; and N. E. of *Taumaco*.
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It appears, that in consequence of the knowledge *Quiros* obtained in this latter island, he determined, after some days navigation to the west, to direct his course to the south, to look for this land of *Manicolo*, which *Tumay* had described to him as so fertile in productions of all kinds, rich in animals and plants, and, on the coasts, abounding with mother of pearl, and even pearls.

Quiros quitted the island of *Taumaco* the 16th of April; and on the 21st, in the evening, he discovered land to the south-east. They manœuvred cautiously to approach it all night. They then sailed along the northern coast; and *Luis Vaex de Torres* went in a canoe to examine it. He could not find an anchorage for the fleet; but he was near enough to the land to converse with the inhabitants, who offered him a present of nuts, and a piece of stuff made of palm-leaves woven together. He learned from them that the island was called *Tucopia*; and they made him understand by signs, that if he sailed southward, he would meet with extensive countries, where the inhabitants were fairer than those he had yet seen. As this island afforded no shelter from the wind, they did not remain there. In coasting along it, they perceived that it produced many fruit trees, of which they saw several plantations. It lies in lat. 12°.

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The fleet proceeded southwards, with variable winds, till the 25th of April, when, at day-break, an extensive high land was seen in the latitude of $14^{\circ}\frac{1}{2}$ [M]. They named it *Nuestra Senora de la Luz* (our Lady of Light).

Soon after, another land was perceived to the west, and a third, larger, to the south, and one still more extensive, to the south-east. The mountains of the latter, which extended as far as the eye could reach, were of very great height. In steering for that which lay to the west, they perceived another still larger, and apparently higher. The *Zabra* approached the shore, and the natives, by signs, strongly solicited the Spaniards to land. The country was well cultivated, and covered with fruit trees. Among these numerous islands, which at once presented themselves to view, in different directions, Quiros determined to sail the next day for that which remained to the west of *Nuestra Senora de la Luz*, and approached it on the southern side. But before he could reach it, he perceived another yet more elevated and larger, to the south-east, which, however, did not prevent him from pursuing his former plan. As they approached the western land, columns of smoke were seen rising from the summits of all the mountains. Some canoes came off from the coast, and coming up to the ships, gave many signs of peace and friendship. An armed boat was sent out to look for a harbour, and soon reached land. Great rivers were

[M] The latitude of this island, and its position with respect to the more southern lands, show that it is the *Pic de l'Etoile* of Bougainville.

here

here seen, which rose in the heights, descended over rocks and valleys, and discharged themselves into the sea by large mouths. On the shore were some hogs, not different from those of Spain, and an innumerable assembly of Indians of three distinct colours [N]. Some copper-coloured, others almost black, and some completely white, with fair hair, and beards [O]. All these Indians, by signs of amity and peace, invited the Spaniards to go on shore, and they seemed afflicted that the boat did not put in. She coasted along, in order to reconnoitre, and passed in sight of several villages, which appeared very populous. The inhabitants of this part of the island, who were of a much darker colour than the former, at first indicated pacific dispositions, as they had done, but very soon gave proof of their perfidy. Having caused their women to retire into a neighbouring wood, they discharged a shower of arrows at the boat, by which one Spaniard was wounded. They were answered by a discharge of musquetry, which killed some, and wounded many.

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Night obliged the boat to return to the fleet. They wished now to examine the land they had seen to the south-west, and therefore

[N] We cannot but remark, that *Torquemada* names the hogs before the inhabitants. It has happened too often to Europeans, in discovering new countries, to have made no distinction, in their treatment, between man and beast.

[O] It is probable, that this beautiful flaxen hair was stained of that colour, or powdered with lime, which, in the end, would turn it yellow. This custom, as well as that of painting the face and body red, black, and even white, has been observed among many tribes in the South Sea, and particularly in the islands near *New Guinea*.

failed

QUIROS. failed that way, and in the afternoon of the 30th of April, arrived
 1606. at a large open bay. They had not time to explore it this day, but
 the next morning the *Zabra* was sent off with a boat to view it,
 and look for a harbour. She returned to the ships in the afternoon,
 and reported that the bay was spacious, and defended from the
 winds; that the depth of the water very near the shore, was from
 thirty fathoms to eight, with a good bottom; that the inhabitants
 were tall, had approached the brigantine in their canoes, and seemed
 disposed to peace, in token of which, they had distributed among
 the Spaniards tufts of herons' feathers [P], which they wore in
 their own hair; that there was another bay running S. and S. E. of
 which they could not see the end; and that the land, as far as they
 could see, appeared to lie in the form of an amphitheatre.

On the report of the *Zabra*, Quiros determined to make for this
 second bay, which lay to leeward of the first, and the next day the
 fleet anchored there. It received the name of the bay of *San-Felipe*
y Sant-Yago, (St. Philip and St. James) in honour of the day. The
 opening of the bay ran north and south. Its eastern side seemed
 about 12 leagues, the western 15; the opening, about eight leagues
 across.

The boats were now sent to sound the bay, and look for a harbour.
 They soon discovered a spacious and convenient one [Q], between

[P] *Y que les dieron unos plumages, como Martinetes.*

[Q] It appears that the port is only the extremity, or *cul de sac* of the bay, which
 affords good anchorage near land, on a sandy bottom, in from six to forty fathoms
 water.

the mouths of the two rivers. The depth varied from 40 fathoms to six [R], and there was, throughout, an excellent bottom of sand [S].

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The fleet moored there the same day. The port received the name of *la Vera Cruz*, (the True Cross) and the land to which it belonged, that of *Tierra Austral del Espiritu Santo*, (Southern Land of the Holy Ghost) [T].

This harbour, as we have said, was situated between two rivers: one was named *el Jordan* (the Jordan), and the other, *el Rio de San Salvador* (our Saviour's River).

We shall not relate the different events which succeeded each other while the Spaniards remained in the port of *Vera Cruz*;

[R] We read, in the Memoir of *Quiros*, of from 40 fathoms to $1\frac{1}{2}$, which is evidently a mistake, *Torquemada* says, from 40 to six; and the account of *Quiros* himself confirms it, when he adds, that in the river is a bar, where there are not more than two fathoms of water, which will admit only light vessels.

The Spanish fathom is two *vares*, six feet, Castilian measure.

[S] Mr. Pingré, in his Memoir of the Transit of Venus, says, that the port is in $15^{\circ} 40'$ south latitude. It does not appear whence he took this situation; it is not found in the relation of *Torquemada*, whence this part of his memoir is extracted.

[T] We shall see presently, that the *Land of the Holy Ghost* has been re-discovered in these latter times, as well as the islands *Dezana* and *Sagitaria* (Maitea and Otaheité); but all the other islands discovered by *Quiros*, and many of those seen by *Mendana*, have hitherto escaped the researches of modern navigators. The existence of the former proves that of the latter.

their

QUIROS. their difficulties, fatigues, commerce, and quarrels with the natives.

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We shall confine ourselves with what belongs to the description of the country, but shall not take it from *Torquemada*: it will be more interesting to hear the report of *Quiros* himself; and therefore we shall extract our subsequent account from one of the memorials presented by him to Philip III.

It appears, according to the report of *Torquemada*, that the design of *Quiros*, when he quitted the bay of *San-Felipe y Sant-Yago*, was to return to China; but having met with very adverse weather, and his vessel being in a bad condition, it was determined, in a general council, that he should give up this expedition, and sail for New Spain. This return was attended with many difficulties; and it was not without many narrow escapes from imminent danger, that he brought his ship again to the coast of Mexico, the 3d of October, 1606, nine months after his departure from *Callao*.

The account of *Torquemada* concludes here; but *Figueroa*, in his History of the Marquis of *Canete*, supplies us with a singular circumstance, which deserves to be reported [u].

The *Almiranta*, or second vessel of the fleet, commanded by *Luis Vaez de Torres*, had been separated from the *Capitana*, as they left the *Tierra Austral*. This separation was occasioned by a storm, but may be considered as a happy circumstance. Torres, in his passage,

[u] *Echos de D. Garcia Hurtado de Mendoza, quarto Marques de Canete.* B. VI. p. 290.

touched

touched at many islands abounding with gold, pearls, and spice : he
 had pursued the line of a coast for 800 leagues [x], and seized some
 of the inhabitants, whom he carried with him. He arrived at the
 Philippine Islands, where he gave an account of his discoveries [y].

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Jean Luis Arrias reports some particulars which are not in the
 narrative of *Torquemada* [z].

Quiros, says he, after having discovered in his voyage several small
 islands, and others of large extent, came to that of *Taumaco*, which
 may be eight or nine leagues round, and is situated in 10 degrees of
 south latitude, 1700 leagues from Lima, and near 80 leagues to the
 east of the *Santa-Cruz* of Mendana. The sovereign, or chief of
Taumaco, made *Quiros* understand, as well as he could, and in a
 very positive manner, that if his object was to find a large conti-
 nent, it was towards the south that he must make his search, and
 not on the side of *Santa-Cruz*; and that in the southern part there
 were countries highly populous as well as fertile, extending to the
 south a great way.

[x] *Costeo ochocientas leguas*. These 800 leagues are Spanish leagues, of $17\frac{1}{2}$ to a
 degree, and equal to 913 French marine leagues.

[y] When we look at the map, it is clear that *Torres*, going from the *Tierra*
Austral, could not have followed one coast for 800 Spanish leagues, (913 leagues of
 20 to a degree,) without passing to the south of *New Guinea*, and consequently by
 that passage which Cook named *Endeavour Straits*.

[z] We shall translate this extract from that given by Mr. Dalrymple, in English,
 in his *Historical Collection*, Vol. I. p. 143, 4.

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In consequence of this information, *Quiros* relinquished his project of forming an establishment at *Santa-Cruz*; and directing his course southwards, and a little to the south-west, discovered many islands of great extent, and others smaller, but all well peopled, and of a most pleasing appearance. At length having got to the height of $15^{\circ} 20'$ south latitude, he discovered the lands of the bay *San-Felipe y Sant-Yago*, &c.

EXTRACT FROM A MEMOIR OF QUIROS,

PRESENTED TO PHILIP III. [A]

“ THE idea I have conceived of the extent of the countries I have lately discovered, is founded upon what I myself have seen, and on the report which *Luis Vaez de Torres*, who commanded under me, has given in to your majesty. From his testimony and mine, your majesty may be assured, that the extent of these countries exceeds that of Europe, Asia Minor, the Caspian Sea, and Persia together, with all the islands of the Mediterranean and

(A) *Purchas*, in his Collection of Voyages, (*Purchas's Pilgrimes*, Vol. IV. p. 1422, Lond. Stansby, 1625) has given an English translation of this memoir of Quiros, published at Sevil, in 1610. We find a more elegant version, but with some alterations, in the Historical Collection, &c. by Alexander Dalrymple, Vol. I. p. 162.

Atlantic, including England and Ireland. These countries, unknown till our time, occupy one quarter of the earth's surface; and all the kingdoms submitted to your Majesty's dominion, all your possessions, do not equal the half of this new part of the world, which has an additional advantage in being at a distance from the Turks and Moors, and other nations whose restless activity inclines them always to make war upon their neighbours: they are all situated in the Torrid Zone, and a great part extends even to the Equinoctial Line. Their whole extent may be, perhaps, about 90 degrees; and in some parts rather less: and if the success of the undertaking proves answerable to my expectations, the Spaniards will have establishments, and large cities, in countries which are the antipodes to a great part of Africa, and the whole of Europe and Asia, and not inferior to them in magnitude [B].

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“ I intreat your Majesty to observe, that since the countries discovered by me in 15 degrees South latitude (the *Australia del Espiritu Santo*) are richer and more fertile than Spain; those which are situ-

[B] The exaggeration is violent. It is true that Quiros had no doubt, that all the islands and countries he had seen in his latter voyage, and in that he had made in 1595, as pilot to Mendana, belonged to a large continent, extending itself from the Equator to the South Pole, and running from East to West as far as the continent of Asia. The accounts of that time call this continent *Terra Australis incognita*. The remarkable efforts of Captain Cook, who made his way, among the ice, in various parts, to the 67th, and even 71st, degree of South latitude, have destroyed, for ever, the idea of a southern continent. Were there such a continent, its extent could not be considerable; and being placed so near the pole, surrounded with perpetual ice, perhaps coeval with the world, and itself buried under mountains of ice, the knowledge of it would be as useless as the discovery is impracticable.

QUIROS. ated in a corresponding latitude, in the southern hemisphere, ought,
 1606. by proportion and analogy, to be an earthly Paradise.

“ These countries are as populous as they are fertile [c]. There are among the inhabitants several different races of men; black, white, mulatto, tawney, and copper-coloured, with several other shades more or less approaching to each of these. Some of them have their hair black, long, and lank; others woolly and thick, and others flaxen and shining. These varieties of species prove, that they either have now, or formerly had, an intercourse with various people; and this consideration alone leads us to conclude, that the population of these countries is very great. This opinion is confirmed by observing, that they know not the use of fire arms, are not employed in mines, nor have any of those means of destruction which the genius of Europe has invented. Industry and policy seem to have made but little progress among them: they build neither towns nor fortresses; acknowledge neither king nor laws; and are divided only into tribes, among which there does not always subsist a perfect harmony. Their arms are the bow and arrows, which they have not yet learnt to tinge with poison [d]; the spear, and the dart which is thrown by hand: all these are of wood. Instead of clothing, they wear only a covering round the waist, which reaches to the

[c] Quiros had no other design, than that of making known the *Tierra Austral* and its inhabitants; yet seems, sometimes, to generalize his account, by interweaving with it the particulars which belong to the countries, discovered at another time, by himself and Mendana.

[d] Captain Cook was persuaded, that at *Mallicolo*, and other islands of the *Tierra Austral*, the savages know the art of poisoning their arrows.

middle of the thigh. They are studiously clean, and have a lively disposition, accompanied with much sensibility; and I have proved, by experience, that they are very grateful to those, who either express a friendship for them, or who show them any act of kindness. The knowledge I have gained of the character of these nations, convinces me, that they are capable of instruction; and that, with good treatment, they might be brought to allow us to form settlements in their country, and to live with us on good terms.

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“ Their houses are built of wood, and covered with palm-leaves; their gardens divided into compartments, and surrounded with palisades; they have also places of worship and burial. The vessels they use are of earth; and in fishing they employ nets of various kinds. They work in stone, and even polish marble, of which there are many quarries: they make flutes, and drums, and wooden spoons, which are varnished. They make, in particular, great use of mother of pearl, forming it into many tools, and instruments, as chisels, scissars, knives, hooks, saws, hatchets, &c. and sometimes into pearls, and small round plates, of different sizes, which they wear in necklaces. Their canoes are well built, and finished in a workman-like manner; and the size of these vessels is such, that they can navigate them securely from one island, or continent, to another. All these commencements of civilization surely afford a proof, that they have communication with people really civilized, which seems to be further confirmed by the custom they have of castrating their hogs and their fowls.

“ Three

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“ Three kinds of roots, very plentifully supplied by their soil, afford them a bread of pleasant flavour, wholesome and nutritious. Some of these roots are as much as three feet long, and a foot and a half thick; and the preparation they require is only that of roasting them till they become soft. Fruits are very common, and very excellent in quality. We found six species of bananas, and four of almonds; large *obos*, bearing a fruit like a peach [E]; many kinds of nuts peculiar to the country; oranges and citrons, of which the natives make no use; apples, much resembling those of Europe; another excellent large fruit, and, indeed, several more, of equal goodness, which we have not only seen but eaten. The sugar-cane is a native of the country, and there are regular plantations of it. The palm-tree abounds every where; and they extract from it a juice, or *Tuba* [F], whence they make a spiritous liquor, vinegar, and a mixture, like honey and whey. Their cabbage, which is known by the name of cabbage-palm, is susceptible of many modes of dressing, and may be ranked among the most delicious foods. The same tree bears the cocoa nuts, which are useful for so many purposes; when green, they may be eaten like *cardons* [G]; when ripe, they serve both for food and drink, for the nut is very well tasted, and contains a kind of pleasant milk. They will keep at sea, and may be taken as provisions:

[E] Purchas gives the Spanish word, *Melacatones*, which should be *Melocotones*: it is the *Mirlicoton*, a sort of hard or yellow peach. Mr. Dalrymple has translated it *Quince*, which, in French, is *Coin*.

[F] This juice is called *Toddy*, by the English, in the East Indies.

[G] Mr. Dalrymple renders the Spanish word *Cardo*, by artichoke. It seems, to us, that it is the *Carde*, or Spanish *Cardon*.

finally,

finally, when they are no longer fresh, they still are useful; an oil, QUIROS.
 very fit for burning, is extracted: and a kind of wax, resembling 1606,
 balm, which may be eaten, while it is fresh; even the shell is not to
 be rejected, it serves for bottles, drinking-cups, and other utensils; and
 its outer bark is beaten into a kind of oakum for calking vessels: it
 is used also as hemp, in forming cables, and smaller cordage:
 matches may also be made of it, and the very best I ever met with
 for the use of musquetry [H]. The natives of this country make of
 the leaves a kind of cloth, which serves for sails to their vessels; and
 mats, with which they cover and line their habitations; and in the
 building of them, employ the body of the tree, which is straight and
 very high: the trunk serves also for bucklers, lances, and other
 arms; paddles for their canoes, and various other instruments for
 common use. The palm-tree is the vine of this country, produc-
 ing annually both fruit and wine, without any expence or labour
 employed in the cultivation.

“ Among their plants and pot-herbs we distinguished particularly
 the pumpkin, a large kind of blite, purslain, and a species of bean.

“ The animals proper for the nourishment of men are multiplied
 there. They have fowls, a sort of partridges, peculiar to the country,
 geese, turtles, and ring-doves: the hog is common, and a domestic
 animal, as in our climates. One of our Captains informed me, that
 he had seen some goats; and the natives made me understand, that
 they had knowledge both of cows and buffalos. The sea abounds

[H] The art of using flints to guns, was, as yet, unknown; and the powder in the
 pan was touched with a match.

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with fish of every kind ; at least I conclude so, because our sailors, both on board, and from the coast, took *porgos* [1], *reyes*, *soles*, *mullets*, *whittings*, *shads*, *macabas*, *pampanos*, *chita-viejas*, *eels*, *peezes-puercos*, *roaches* ; and also shell-fish, as *lobsters*, *muscles*, and many other sorts, both of fish and shells, the names of which have escaped my memory."

After this enumeration of the resources offered by the *Tierra Austral* to European settlers, which Quiros carries on to a still greater extent, he proceeds to the natural productions which, by supplying the means for a great commerce, might increase the riches and prosperity of Spain.

" The riches of these countries, he adds, are silver and pearls, which I have seen myself ; and gold, which was seen by another Captain. These three objects are the most valuable productions which nature has afforded to our globe. Next to these we must reckon nutmegs, mace, pepper, and ginger, which are the natural produce of the land. I have reason to believe, that even cloves and cinnamon are to be found there ; and we may fairly conclude, that the soil is fit for the production of all kinds of spices, because I have, myself, seen several ; and, besides, these countries are situated in the same parallel as the Moluccas, Ternate, Batchian, &c [κ]. I am
equally

[1] The words in Italic are Spanish names, of which, it has not been practicable to procure a translation.

[κ] We cannot see, without astonishment, that, in the beginning of the 17th century, which had been preceded by an age of discoveries and great voyages, men should
still

equally certain, that the manufacture of sugar and indigo, might be carried on with success: the nature of the country would, doubtless, not disagree with the plants that produce it; and the rivers are in such abundance, that it would be easy to establish manufactories, with every convenience for their fabrication. The country affords ebony, of the finest quality; and many kinds of wood, in sufficient quantity, for the construction of a great number of vessels, which it can also fit out with every thing they want. Three sorts of plants may be employed for the fabrication of sail-cloth and cordages; one of them, not unlike the hemp of Europe. The oil of the palms may be used in the composition of the *Galgale* [L], which may be substituted, with advantage, for the coating of the keels, instead of pitch and rosin. Since there are goats, and proofs have been seen of the existence of other cattle, meat, leather, and fuel will be plentiful; and as bees have been observed, there can be no want of honey and wax. Independent of all these riches, the situation, and nature of the country, secure to us an infinity of other productions, which activity and industry may multiply still further, by naturalizing those of Peru and New Spain, which appear to have a great affinity to those of this country. In a word, the union of so

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still have so imperfect an idea of the relative situation of different countries. Quiros here supposes, the *Tierra Austral* to be in the same parallel with the Moluccas; whereas these islands are one degree north of the Line: and Quiros himself says, that the *Tierra Austral* begins in 15 degrees south latitude, and extends southwards.

[L] A kind of composition, or of mastic, employed, throughout India, with the greatest success, to pay the outer works of vessels. It lasts many years; and defends the keel against the attacks of worms, so numerous and destructive in the seas of hot climates.

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many advantages, would produce such power and riches, that these territories would not only support themselves, but afford an overplus for the assistance of America, aggrandize and enrich your Majesty's dominions in general, and very speedily elevate Spain to the highest degree of prosperity; all of which I will undertake to answer for, if I am assisted and supported in my enterprize."

We shall omit some other details entered into by Quiros, for the sake of proving, to his Majesty, that his *Tierra Austral del Espiritu Santo*, was the most delicious country in the world, the Garden of Eden, the inexhaustible source of glory, riches, and power to Spain. I proceed to the description he has given of the Bay of *San-Felipe y Sant-Yago*, situated on the northern coast of the largest and most northerly of these isles.

"This bay, says Quiros, penetrates twenty leagues into the country; the inner part is all safe, and it may be entered, with security, by night as well as day. On every side, in its vicinity, many villages may be distinguished; and if we may judge by the smoke which rises by day, and the fires that are seen by night, there are many more in the interior parts. The harbour, which I have named *La Vera-Cruz*, is part of this bay, and so large, that it would admit a thousand vessels. The anchorage is on an excellent bottom of black sand; and I am persuaded, that the ships which lie there, have nothing to apprehend from the worms. They may anchor in different depths, from forty fathoms to six [M], between two rivers,

[M] In the original we read, instead of six fathoms, half a fathom, which is erroneous. See above, page 47, note [R].

one of which is as large as the Guadalquivir, at Seville, and has a bar, QUIROS.
on which there are not above two fathoms of water, passable only by 1606.
light vessels. In the second, where our boats found an easy entrance, we took our water, which was clear, and of a good quality. The most convenient landing-place is a shore, about three leagues in length, principally formed by a bank of small black pebbles, which are heavy, and fit for ballast. After having attentively examined the appearance of the shore, which is smooth, regular, and without cuts or gaps, and lined with verdure, we may presume that it is never beaten by waves: and the trees, having their stems straight, their branches interlaced, and none of them broken, show plainly, that violent winds and storms do not penetrate to the bottom of the bay. Besides the advantage of being sheltered from the tempest, another recreation and delight is offered, in this harbour, to the navigators who make it their asylum. Every morning there arises, from the bosom of the charming forests with which this coast is shaded, a most delicious concert. Millions of birds, of different species, by their songs, announce the rising of the sun: among them, the ear seems to distinguish those of the nightingale, the blackbird, the thrush, the goldfinch, an infinite number of swallows, and other songsters of the woods; and amidst these harmonious tunes, and the cries of various parrots, and one especially of a particular kind, may be perceived the sharp notes of the grasshopper and cricket. In a word, at morning and at evening, every day, the air is perfumed by the odours of all kind of flowers, intermixed with those of aromatic plants; among which, the orange flower, and the basil, seem each to prevail over the rest of their species. A climate, in which so many charms are united, cannot but be temperate; the uniform course of

QUIROS.

1606.

nature is never there interrupted, nor does the snow lie even on the summits of the mountains.

“ The vicinity of a great many islands adds a new degree of importance to the happy situation of the bay and harbour. These islands extend throughout a space of more than 200 leagues; and I satisfied myself, that one in particular, not more than 12 leagues from the bay, and very fertile and populous, is 50 leagues in circumference.

“ Finally, Sire, I can with confidence assert, that this harbour, which is situated in $15^{\circ} 20'$ of south latitude, presents a situation of the greatest natural advantages for the establishment of a large city, and a numerous colony.

“ I have but feebly represented all the riches which await the Europeans who shall be willing to transport themselves to these delightful countries; but time will develop them, and make amends for my inability: and I doubt not, that this city will become hereafter the centre of communication and general mart for all the commerce of *Chili*, *Peru*, *Panama*, *Nicaragua*, *Guatemala*, *New Spain*, *Ternate*, the *Philippines*, and other countries beyond sea, which are under the dominion of your Majesty.

“ To form a judgment of the salubrity of the air, and of the temperature of this climate, it will be sufficient to recollect the proof made of them by our sailors and soldiers. Transplanted suddenly into a new world, their sufferings and fatigue, upon their first arrival,

arrival, were excessive. Bathed in perspiration, exposed to damp and dew, drinking without discretion the water of the rivers or springs, eating the fruits of every kind of tree that they discovered, exposing themselves alternately to the violence of the sun by day, and the chillness of the air by night, which, after some hours, obliged them to put on their woollen clothes; in a word, running every hazard without the least precaution, not one of them fell sick. If this proof, during a whole month, of the excellence of the climate, require confirmation, the natives of the country may afford it amply. They are healthy, well formed, robust, and I saw among them many who appeared to have attained a great age; yet they have no bed except the earth; and if experience had proved it necessary to guard against the dampness of the soil, instinct itself would have directed them, like the inhabitants of the Philippines, to raise their habitations above the earth. The excellent quality of the fruits, even when gathered unripe, the ease with which meat is kept for some days without the aid of salt, and other particulars, which I omit, all conspire to prove the salubrity of the climate. I will add, that I saw no dry or sandy ground; in every part the soil is black, fat, and productive; no thistles are met with, nor thorny shrubs, nor any of those distorted trees, the roots of which stand out of the earth, and obstruct the way; no marshes or lakes, which with their stagnant waters, spread infection through the air; nor is he who bathes in the rivers, exposed to the rapacity of the crocodile. To conclude, ants, muskitos, cock-roaches, and all the devouring insects which desolate our colonies, and which in some parts have driven men out, are unknown in these happy countries,

QUIROS.

1606.

in

QUIROS. in favour of which nature seems to have exhausted her bounties and indulgencies."

1606.

Quiros here concludes his memorial by a long and ardent supplication, in which he resumes and accumulates all the motives which could interest the ambition, vanity, and devotion of the monarch, and engage him to form a great establishment in the isles, of which possession had been taken in his name. We shall excuse the reader the detail of this latter ceremony, the crosses which were set up on the occasion, the processions that were made, the masses that were chanted to consecrate this act of injustice and violence. For two centuries the people of Europe were persuaded, that by associating the God of the Universe in the abuse of their knowledge, their industry, and their power, they gave legitimacy to all their usurpations.

SECOND

SECOND DISCOVERY

OF THE

ISLANDS OF SANTA-CRUZ OF MENDANA,

UNDER THE NAME OF

QUEEN CHARLOTTE'S ISLANDS,

By CAPTAIN CARTERET, in 1767.

AND THE

DISCOVERY

OF THE

Three Islands of GOWER, CARTERET, and SIMPSON,
 belonging to the Archipelago of the Arfacides of Surville [A].

(See Charts I. III. and IX.)

ALTHOUGH the discovery made by Capt. Carteret, in 1767, ^{CARTERET.}

of Mendana's Isles of *Santa-Cruz*, appears foreign to the ob-
 ject of this work, as these islands have not been re-visited by French
 navigators, yet as they form a part of the great Archipelago, situ-
 ated to the south-east of New Guinea, and depend, in some mea-
 sure, upon the *Tierra Austral* of Quiros, near which they lie, we

[A] See *Hawksworth's Account of the Voyages*, &c. Vol. I. p. 525, &c.

have

CARTERET. have thought that it would not be useless to give a sketch of this
 1767. discovery: we will treat more largely of whatever belongs to the islands of *Gower*, *Carteret*, and *Simpson*, which belong to the *Archipelago of the Arfacides*, partly discovered by *M. Bougainville*, in 1768, and more fully by *Surville*, in 1769.

Capt. Carteret passed through the Straits of Magellan, which he left on the 15th of April, 1767. He then went up as high as the islands of Juan Fernandez, and thence traversing the Great Ocean, he discovered, in his course, *Pitcairn's Island*, in $20^{\circ} 02'$ south lat. and $133^{\circ} 21'$ of longitude W. from Greenwich; *the Bishop of Osnaburg's Island*, in 22° S. latitude, and $141^{\circ} 34'$ W. longitude from Greenwich. *The Duke of Gloucester's Islands*, one of them in $20^{\circ} 38'$ S. lat. and 146° W. long. and the other in $20^{\circ} 34'$ S. lat. and $146^{\circ} 15'$ W. long.

On the 12th of August, he discovered land, which he soon perceived to be a cluster of islands; he counted seven of them, and presumed that there were more. Two of them he approached, and in the evening anchored in 30 fathoms before that which seemed the largest and the highest. Some of the natives very soon appeared, who were black, woolly-headed, and entirely naked.

The next day the master was sent, with a detachment of 15 men well armed, to reconnoitre the coast, and seek a proper place for landing, where wood and water might be got, such refreshments procured as the bad condition of the crew very pressingly required, and the ship herself refitted, which had sprung a leak. An act of
 imprudence

imprudence of the master destroyed every hope of treating with the ^{CARTERET.} inhabitants. After a repast, which he received from them, in ^{1767.} which they profusely displayed to the English the strongest marks of friendship and confidence, he was desirous of cutting down a cocoa palm. Notwithstanding the earnest endeavours of the islanders to divert him from this design, he persisted in it, and the tree was no sooner down than they all ran to arms. The boat was attacked, the master and three sailors were wounded by many arrows, and died soon after of their wounds.

The ensuing days were employed in getting wood and water, and doing what was necessary to the ship; but these operations could not be carried on, except by continually keeping off the Indians by musquet-shot, and firing cannon with grape-shot, to drive them from the woods in the neighbourhood of the anchorage to which they retired. The crew was not in a state to support this continual warfare; Capt. Carteret was very ill, many of his officers were the same, and 30 of his men, from a violent attack of scurvy, were so very weak as to be incapable of any service. Having no expectation of being able to establish an amicable commerce with the natives, and being destitute of iron instruments, glass, stuffs, and other objects fit to carry on a traffic with them, he abandoned this island, and with the more regret, because in sailing along the coast they had seen both hogs and fowls in great abundance, cocoa-nut trees, bananas, and a great variety of vegetables.

The same obstacles which prevented his procuring refreshments in this island, equally forbid the attempt to visit others. His ship

CARTERET. was not in condition to pursue the voyage southwards; and being
 1767. afraid of losing the monsoon, he determined, after touching at the
 island of *Santa-Cruz*, to sail northwards, in hopes of putting in at
 that part of New Guinea which Dampier named *New Britain*.

Carteret was not able, therefore, to give more than a very
 vague notion of this group of islands, which he called *Queen
 Charlotte's Islands*, and acknowledged to be the same that
 Mendana had discovered in his second voyage, in 1595. That
 which the Spanish navigator had named *Santa-Cruz*, he called *Lord
 Egmont's Island*, and gave names to the six others [B].

According to the report of Capt. Carteret, the inhabitants of
Egmont Island are extremely nimble, vigorous, and active, with a
 bravery which was undaunted by the fire of musquetry. They seem
 as fit to live in the water as on land, for they leap almost every
 minute from their canoes into the sea; their vessels carry ten or
 twelve men, though three or four are able to conduct them with sur-
 prising dexterity. They are of rude workmanship, being in fact
 only trunks of trees hollowed, and are without sails, but carry an
 outrigger. On the beach they saw some larger than those which
 fought with the English cutter, on the middle of which was an
 awning.

The country in general is mountainous, covered with wood, and
 intersected by many vallies; many small rivers run from the inner
 parts to the sea, and on the coast are several harbours.

[B] See the particulars of them in the Voyage itself.

To the north of the western extremity of Egmont Island, is an CARTERET. island of a conical shape, and of prodigious height. No flames were then issuing from it, but smoke was seen to rise from the summit, which was shaped like a funnel. This is, doubtless, the volcano mentioned in the narrative of Mendana's Voyage.

1767.

Capt. Carteret quitted *Santa-Cruz* the 18th of August, 1767, and the 20th of the same month, he discovered a small island, flat, and low, which he places in eight degrees south latitude, if we take it from its southern coast, and $158^{\circ} 56'$ W. longitude, from Greenwich [c], reckoned from its western coast: he named it *Gower's Island*.

"In the evening," says Capt. Carteret, "we got up with it: to our great mortification, we found no anchorage here, and could procure only a few cocoa-nuts from the inhabitants, who were much the same kind of people that we had seen at Isle Egmont, in exchange for nails, and such trifles as we had; they promised, by signs, to bring us more the next day, and we kept off and on all night: the night was extremely dark; and the next morning, at day-break, we found that a current had set us considerably to the southward of the island, and brought us within sight of two more. They were situated nearly east and west of each other, and were distant about

[c] $158^{\circ} 56'$ is the quantity set down in the narration: the particular plan of this island has 156 degrees, which is evidently a mistake. See the note relative to this longitude of Gower's Island, in the subjoined analysis of a new chart of the Discoveries of the French to the South-East of New Guinea.

CARTERET. two miles. That to the eastward is much the smallest, and this we
called *Simpson's Island*; to the other, which is lofty, and has a
stately appearance, we gave the name of *Carteret's Island*. The
east end of it bears south from Gower's Island, and the distance be-
tween them is ten or eleven leagues. Both these islands were right
to windward of us, and we bore down to Gower's Island. It is
about two leagues and a half long on the western side, which makes
in bays: the whole is well wooded, and many of the trees are
cocoa-nut. We found here a considerable number of the Indians,
with two boats or canoes, which we supposed to belong to Carte-
ret's Island, and to have brought the people here only to fish. We
sent the boat on shore, which the natives endeavoured to cut off,
and hostilities being thus commenced, we seized their canoe, in
which we found about an hundred cocoa-nuts, which were very
acceptable: we saw some turtle near the beach, but were not fortu-
nate enough to take any of them. The canoe or boat, was large
enough to carry eight or ten men, and was very neatly built, with
planks well jointed; it was adorned with shell-work, and figures
rudely painted; and the seams were covered with a substance some-
what like our black putty, but it appeared to me to be of a better
consistence. The people were armed with bows, arrows, and
spears; the spears and arrows were pointed with flint. By some
signs which they made, pointing to our muskets, we imagined they
were not wholly unacquainted with fire-arms. They are much the
same kind of people as we had seen at Egmont Island, and like
them, were quite naked; but their canoes were of a very different
structure, and a much larger size, though we did not discover that
any

any of them had fails. The cocoa-nuts which we got here, and at ^{CARTERET.} Egmont Island, were of infinite advantage to the sick."

1767.

Capt. Carteret, after his departure from Egmont Island, found a very strong current, which set to the southward, and in the neighbourhood of these islands he found its force considerably increased. This observation determined him, when he sailed from Gower's Island, to steer north-west, fearing he might otherwise fall in with the main land too far to the southward, and get into some gulf of New Guinea, whence, from the fickleness of his crew, and the bad state of his ship, he would not have been able to extricate himself.

In the night of the 24th, he fell in with nine islands, which stretched in a line nearly N. W. $\frac{1}{4}$ W. and S. E. $\frac{1}{4}$ E. for about fifteen leagues: they passed to the north of these islands, the middle of which is in $4^{\circ} 36'$ S. latitude, and longitude $151^{\circ} 30'$ E. of Paris [D].

At eleven o'clock at night, they fell in with another island of a considerable extent, flat, green, and of a pleasant appearance; they saw none of its inhabitants, but it appeared, by the many fires they saw in the night, to be well peopled. It lies in latitude $4^{\circ} 50'$ S. and bears west fifteen leagues from the northernmost of the *nine islands*. They gave it the name of *Sir Charles Hardy's Island*.

[D] Carteret, who had an error in his reckoning, which he had no opportunity to rectify by observations, places these islands in $154^{\circ} 17'$ E. from Greenwich, or $151^{\circ} 57'$ E. from Paris.

The

CARTERET.

1767.

The next day the 25th, at day-break, they discovered another large high island, which rising in three considerable hills, had, at a distance, the appearance of three islands. They gave it the name of *Winchelsea Island*; [E] it is distant from Sir Charles Hardy's Island about ten leagues, in the direction of S. $\frac{1}{4}$ S. E.

About ten o'clock in the morning of the 26th, they saw another large island to the northward, which was supposed to be the same that was discovered by *Schouten*, and called the *Island of St. John*. Soon after, high land was seen to the westward, which proved to be *Nova Britannia* (that is, the eastern part of New Guinea).

The next day, the 27th, having only light winds, a current coming from the south-east, set them into a deep gulf, which Dampier, who discovered it in 1700, had named *St. George's Bay*, but they called *Turtle Bay*. (It is the *Praclin Bay* of M. de Bougainville.)

On the 28th, they anchored near a small island, which was called *Wallis's Island*; (it is the *île de Marteaux* of M. de Bougainville) and the harbour, where they dropped anchor, received the name of *Gower's Harbour*. In visiting the coast, they found another harbour, formed likewise by an island, four leagues to the north-west of the former, and this they called *Carteret's Harbour*.

Captain Carteret, after the useless and ridiculous ceremony of taking possession of the whole country, in the name of his Majesty

[E] In Carteret's chart it is called *Lord Anson's Island*; and, in his narrative, *Winchelsea Island*.

King

King George III. on the 9th of September quitted the harbour, CARTERET.
 which bears his name ; and sailing along the coast contiguous to this
 port, discovered a new channel to the north of New Britain. He
 called the long island, the southern coast of which borders upon this
 channel, *New Ireland* ; and the western part of this island, which
 forms a separate isle, *New Hanover*.

We might have concluded this account of the narrative of Capt.
 Carteret, at the discovery of the islands Gower, Carteret, and Simp-
 son ; but as he followed the same route as *M. de Bougainville*, as far
 as the point of New Ireland, it was thought that this comparison
 of the two navigations might prove interesting to the reader.

SECOND DISCOVERY

OF THE

TIERRA AUSTRAL DEL ESPIRITU SANTO,

UNDER THE NAME OF

THE GREAT CYCLADES.

BY M. DE BOUGAINVILLE, IN 1768.

(See Charts I. II. III. VIII. and IX.)

BOUGAIN-
VILLE.

M. DE BOUGAINVILLE, after having passed the Straits of Magellan, traversed the Pacific Ocean, and discovered many islands in his course.

In the month of February, 1768, the *Quatre Facardins*, the *Lanciers*, and *la Harpe*, and other islands, forming two groups, to which he has not given particular names, but composing altogether his *dangerous Archipelago* [A], situated between 18 and 10 degrees south

[A] The *Quatre Facardins*, *les Lanciers*, *la Harpe*, and the two groups, are the same islands which Cook fell in with in the month of April, 1769, and named *Lagoon Island*, *Thrum-cap*, *Bow Island*, and the *Two Groups*. Hawksworth's Voyages, Vol. II.

latitude,

latitude, and between 142 and 145 degrees of longitude west from BOUGAINVILLE.
Paris [B].

1768.

April 2, a small island, which he named *le Boudoir*, in latitude 17° 52' S. and longitude 150° 25' [C].

April 3, *O'-Tabiti*, in latitude 17° 29' 17", at its northern point, and longitude 151° 54' 45" [D].

And in the beginning of May, between 14 and 15 degrees of lat. and about 172 of long. the *Archipelago of Navigators* [E].

The

[B] The true latitudes and longitudes are here given, according to the result of astronomical observations, by which M. Bougainville's reckoning was corrected.

[C] M. Bougainville's *Boudoir* is the same island that Wallis named *Osnaburg*, in 1767; that the natives call *Maitea*, according to the report of Cook, who visited it in 1769; and that Quiros, in 1606, had distinguished by the name of *la Dezana*. See above, in Quiros Voyage, note [H].

[D] Wallis had touched there in 1767, and afterwards Capt. Cook, and other navigators successively put in there. We may say, that Otaheité is become the common point of rendezvous in the Pacific Ocean. There can be no doubt that Quiros first discovered it, and named it *Sagitaria*.

[E] M. de Bougainville is the first navigator who had any knowledge of this Archipelago. M. le Comte de la Pérouse visited it in December, 1786. It was in one of the islands belonging to it, named *Mahouna*, that Viscount de Langle, the Chevalier *Lamanon*, and ten sailors of the frigates *Bouffole* and *Astrolabe*, were treacherously massacred by the natives, with whom they had lived to that moment on perfectly good terms. M. de Langle was the honourable victim of the humane principles which directed the expedition of M. de la Pérouse. If he had allowed himself, as prudence

L

seemed

BOUGAIN-
VILLE.

1768.

The 22d of the same month, M. Bougainville perceived a new land, which he soon judged to be formed of several islands. He had no doubt that this was the *Tierra Austral* of Quiros, which may be considered as the eastern extremity of the vast Archipelago of *New Guinea*. We will extract from the account of M. Bougainville's Voyage what belongs to this part of his discoveries [F].

“ The 22d of May, 1768, at day break, as we were running westward, we perceived before us a long and high land. When the sun rose, we discerned two islands, the most southern of which bore from S. $\frac{1}{4}$ S. E. to S. W. $\frac{1}{4}$ S. It seemed to run to the due N. N. W. and to be about 12 leagues long on that side; we named it from the day, *île de la Pentecôte* (Pentecost Island). The second bore from S. W. 5° S. to W. N. W. and, from the moment at which we first

seemed to require, and self-defence made lawful, to make use of the superiority of his arms as soon as his cutters were aground, and surrounded by the savages, he might easily have dispersed them; but he hoped to deliver himself from their perfidy without punishing them. This trait of moderation has no example in the history of modern navigators; and we may be assured, that M. de Langle will not have many imitators. It will not, doubtless, be thought improper, to take this opportunity of paying a slight tribute of praise to the memory of an officer, whom the French navy sincerely lamented, and the nation must also regret. A mind, enlightened by the study of all sciences useful to a seaman; an extensive experience, confirmed by theory; a soul superior to dangers, yet sensible of their extent; a coolness, which no event could disconcert; a quick conception, an acute and practised eye, were the talents which prepared him to become, in time, such a commander of our naval forces, as would have supported, with dignity and courage, the honour of the French flag.

[F] See a voyage round the world, by the king's frigate *la Boussole*, and the *Etoile*, armed *en flûte*, in 1766, 7, 8, and 9. Page 242, 4to. edit.

discovered

discovered it, was called *Aurora Island* [G]. We bore down to the nearest, on the larboard tack, to pass between the two islands, but the wind failed us, and it was necessary to pass to leeward of Aurora Island. Advancing northward along its eastern coast, we perceived to the N. $\frac{1}{4}$ N. W. a small high island, shaped like a sugar-loaf, which we named *le Pic de l'Etoile* [H]. We continued to range along the coast of Aurora, at the distance of a league and a half. It lies due north and south from its southern point to about half its length, which is ten leagues; then it turns a little to the north-west: it is not above two leagues broad, and its coasts are steep, and covered with wood. At two in the afternoon, we perceived above this island, some high mountains, about ten leagues beyond it; these belonged to a land, which, about half past three, showed its south-west point over the north end of Aurora, bearing S. S. W. Having doubled this point, we steered S. S. W. and, at sun-set, a new coast, high and very extensive, came in sight, extending from the W. S. W. to N. W. $\frac{1}{4}$ N. at the distance of 15 or 16 leagues.

BOUGAINVILLE.

1768.

“ The islands of *Pentecost* and *Aurora* are nearly on the same meridian, at two leagues distance from each other; the third is to the south-west of Aurora; and their smallest distance is three or four leagues; the north-west coast of this is at least twelve leagues in

[G] The latitude of Aurora Island is $15^{\circ} 08'$, and its longitude $165^{\circ} 58'$ E. of Paris.

[H] This island is named *Pic de l'Averdi* in M. Bougainville's chart, but we thought the narrative should be preferred, which calls it *Pic de l'Etoile*.

BOUGAIN-
VILLE.

1768.

length, very high, steep, and covered every where with wood. We had coasted along it a part of the morning of the 23d, when several canoes appeared along the shore, but none attempted to approach us. No houses were perceived, but smoke was seen to rise in many places out of the middle of the woods, from the sea-shore to the tops of the hills: we sounded frequently very near the shore with more than 50 fathoms of line, and found no bottom.

“ At nine in the morning, the sight of a coast, which seemed to offer a convenient landing-place, determined me to send on shore for wood, of which we were greatly in want, to examine the country, and endeavour to get refreshments for our sick. I sent three armed boats, under the command of the Chevalier *de Kerué*, ensign of marine; and we lay-to, ready to send them succour, and support them with the artillery of the ships, if it should be necessary. We saw them land without any of the natives appearing to oppose them. At half past one, I embarked with some others in a yawl, to join the former party. We found our people cutting wood, and those of the country assisting them to carry it to their boats. The officer who commanded the descent, told me, that on his arrival a number of the islanders had come to meet him on the beach, with bows and arrows in their hands, making signs to him not to land: but when, notwithstanding their menaces, he gave orders to land, they retreated some steps; and, as our people advanced, the savages retired, always keeping their arrows ready to discharge, and not suffering them to come very near. That then he caused his troop to halt, and the prince of *Nassau* desired to approach towards them, when on seeing a single man come forward, they ceased to re-

tire:

tire : some pieces of red cloth distributed among them, finally established a kind of confidence. The chevalier *Kerue'* then took post at the entrance of a wood, set his workmen to cut down trees under the protection of a guard, and sent a detachment to look for fruits. By degrees the islanders approached with more appearance of good humour ; some fruits were even obtained from them, but they refused both iron and nails. They would not, on any account, be persuaded to barter their bows and clubs, and would only part with a few arrows. Great numbers of them continued assembled round our people without ever quitting their arms, and those who had not bows, kept stones in their hands ready to throw. They had given to understand, that they were at war with the inhabitants of a neighbouring district ; and, in fact, an armed troop appeared from the western part of the island, which advanced in good order, and the others seemed fully prepared to receive them, but no attack took place.

BOUGAINVILLE.

1768.

“ We found matters in this state when we landed. We staid till our boats were laden sufficiently with fruit and wood ; and I caused an act of taking possession of these islands [1], engraved on a plank of oak, to be buried at the foot of a tree, after which we re-embarked. Our departure certainly disconcerted a project of the islanders, who had every thing in readiness to fall upon us ; so at

[1] M. Bougainville thought it incumbent upon him to follow the example of the navigators of other nations ; but we are persuaded, that it was rather to establish the date of his discovery of the islands, than to support the pretended right of possession. The act thus buried is, on these occasions, the visiting ticket, which is left at the door.

BOUGAIN-
VILLE.

1768.

least we judged, from finding that they advanced to the shore, and discharged a shower of stones and arrows against us. Some pieces discharged into the air did not rid us of them; and some even advanced into the water to take surer aim; but a discharge of a more serious kind immediately slackened their attack, and they fled with great cries into the woods. One sailor was slightly wounded with a stone.

“ These islanders are of two colours, black and mulatto. Their lips are thick, their hair frizzled, and some have a kind of yellow wool: they are small, ugly, ill-made, and in general devoured by the leprosy, which occasioned me to call the place the *Isle of Lepers*: few women were seen, but they were altogether as disgusting as the men. They go naked, hardly covering their waists with a mat; the women have also a kind of scarf, in which they carry their children on their backs. We saw some of the substances of which these were made, and they were ornamented with pretty patterns, in a beautiful crimson dye. I remarked, that they were all without beards. They pierce their nostrils to hang some ornaments in them; and wear also, on their arms, by way of bracelets, the tooth of a *babiroussa*, or a great ring of a substance which I take for ivory; and, on their necks, plates of turtle shells, which they made us understand were very common on the coast.

“ Their arms are the bow and arrows, clubs of iron-wood, and stones, which they throw without slings. Their arrows are reeds, armed with a long and very sharp point of bone; some of them squared, and armed upon the edges with small points turned backward,

ward, which prevent extraction of the arrow from the wound ; they have also fibres of iron-wood.

BOUGAIN-
VILLE.

1768.

“ Their canoes did not come near us, but at a distance they seem to be made and rigged like those of the *Navigator's Islands* (discovered by M. Bougainville).

“ The beach where we landed was of very small extent ; and at twenty paces from the sea, we came to the foot of a hill, the side of which, though very steep, is covered with wood. The soil is very light, and not deep, and the fruits of the same kinds as those in Otaheité are, consequently, in less perfection ; but we found a sort of fig peculiar to the place. We met with many tracks cut through the woods, and spaces enclosed with palisades of three feet high. Are these entrenchments, or merely the limits of different possessions ? We saw no houses, except five or six small huts, which we could not enter without crawling close to the ground. Nevertheless, the people who surrounded us were very numerous. I fancy they are also very miserable. This intestine war, of which we were witnesses, must be a cruel scourge : we several times heard the harsh sound of a kind of drum from the thickest of the wood towards the top of the hill, which was, doubtless, their signal for rallying, for from the moment they were dispersed by our fire-arms, it began to beat again : it redoubled its melancholy sound also, whenever the hostile party, which we saw several times, appeared in view. Our Otaheité man, who desired to accompany the party to shore, seemed to think them very despicable, and could not understand a single word of their language.

“ At

BOUGAIN-
VILLE.

1768.

“ At five in the morning, of the 25th, I set all my sails, and steered to reconnoitre the land, which lay to the west; at eight we discovered land in every point of the horizon, and seemed to be inclosed within a large gulf. Pentecost Island began to bear south of the coast last discovered; and we could not be certain whether it was detached from it, or whether the part which seemed to form the separation was not a large bay. Many places along this coast offered also the appearance either of passages or of great recesses, and one in particular to the west, presented a considerable opening. Some canoes were seen passing from land to land.

“ The 26th, at sun-rise, Pentecost Island appeared still separated from the land to the south-west, but the separation seemed more narrow. We discovered many other openings in this coast, but without being able to make out the number of islands which composed the Archipelago. Land extended in sight from the E. S. E. by the S. to the W. N. W. point, and did not seem there to terminate. I steered N. W. $\frac{1}{4}$ W. bearing round to due west, along a beautiful coast covered with trees, on which appeared to be great spaces of cultivated land; whether they really were so, or whether nature had only sported in assuming that appearance, I could not discover. The general view announced a rich country; and the tops of some of the mountains being in some places bare, and of a reddish colour, seemed to indicate that there were minerals within. The course we took conducted us to the great opening, which had appeared the evening before to the westward: at noon we were in the middle of it, and took an observation of the sun's meridian altitude. The extent of this opening is between five and six leagues; it runs E. $\frac{1}{4}$ S. E. and

W. $\frac{1}{4}$ N. W. Some men showed themselves on the southern coast, and others approached our vessels in a canoe, but as soon as they were within musquet-shot, they ceased to advance, notwithstanding our invitations: they were perfectly black.

BOUGAINVILLE.

1768.

“ We pursued the northern coast, at the distance of three quarters of a league, and found it low, and covered with trees [K]. A multitude of negroes appeared upon the beach, and a few canoes put off, but they had no more confidence than those we had seen upon the opposite coast. When we had proceeded for the space of two or three leagues, we perceived a great opening, which seemed to form a beautiful bay, with two small islands at the entrance. I immediately dispatched one of our armed boats to reconnoitre them, during which time we stood off and on between one and two leagues from shore, often sounding, but without finding any bottom, with a line of 200 fathoms.

“ About five o'clock, we heard a discharge of musquetry, which gave us great uneasiness. It proceeded from one of our boats, which, contrary to my orders, had separated from the others, and being very near land, had unfortunately met with an attack from the islanders. Two arrows being shot at her, afforded the pretext for the first discharge, after which they proceeded along the coast,

[K] This coast, which M. Bougainville sent afterwards to visit, is the southern coast of the great island where Quiros remained for a month, and which he has described in his memorial. The great bay and port of *Vera-Cruz* are situated on the northern coast of the same island.

M

keeping

BOUGAIN-
VILLE.

1768.

keeping up a very brisk fire with musquets and swivels, both upon land, and upon three canoes, which passed within shot, and discharged some arrows at them. A point of land then intercepted the boat from our sight, and the continual firing made me apprehend that she was attacked by a whole fleet of canoes; I therefore was about to send our cutter to her assistance, when we saw her double the point behind which she had been concealed. The negroes set up horrid cries in the wood to which they had fled, where we heard also the beating of the drum. I made a signal to the boat to come on board, and took measures to prevent our being again dishonoured by such an abuse of our superiority.

“ The boats of the *Boudeuse* discovered that this coast, which we had supposed to be continued, consists, in fact, of a cluster of islands, lying together in such a manner, that this bay is merely the union of the several channels by which they are divided. Notwithstanding this, they found a tolerably good sandy bottom, in 40, 30, and 20 fathoms, but its continual variation rendered the anchorage too uncertain, and particularly for us who had no anchors to hazard. Besides, it was necessary to anchor a full half league from the coast, for in the nearer parts the bottom was rock: the vessels therefore could not have covered the landing of the boats, and the country is so woody, that the men must have been perpetually under arms to prevent the danger of surprise; nor could we flatter ourselves, that the natives would so far forget the mischief we had done them as to open any traffic for refreshments. The same productions were remarked here as on the *Isle of Lepers*; the inhabitants were of the same kind, almost all black, naked, except the waist, wearing the

the same ornaments, as necklaces and bracelets, and employing the same arms.

BOUGAIN-
VILLE.

1768.

“ On the morning of the 27th, we proceeded along the coast, at the distance of about a league; towards ten, on a low point, was perceived a plantation of trees, disposed in regular walks as in a garden; the ground under the trees was beaten, and apparently fanded; and a great number of the inhabitants showed themselves in this part. On the other side of the point was the appearance of an opening, upon which I put out the boats, but it was to no purpose; there was only an elbow formed by the coast, which we followed quite to the north-west point, without finding any anchorage. Beyond this point, the land doubled to the N. N. W. and extended further than we could see; the whole coast of an extraordinary height, with a continued chain of mountains, whose summits were above the clouds. Besides, the weather was dark and squally, with rain at intervals, so that we frequently imagined we saw land before us, which proved only fog-banks, and vanished as the air cleared. We passed the whole night, which was very stormy, standing off and on in very short tacks, and the currents carried us southward very much beyond our reckoning. The high mountains were in sight all day on the 28th, and at sun-set we left them, bearing from E. to N. N. E. at the distance of 20 leagues.

“ On the 29th, we saw no more land, having steered W. N. W. I called these islands we had just discovered, *the Archipelago of the Great Cyclades.*”

DISCOVERY

OF

LOUISIANA,

BY M. DE BOUGAINVILLE,

IN M.DCC.LXVIII.

(See Charts I, II, and IX.)

BOUGAIN-
VILLE.

1768.

M. DE BOUGAINVILLE had ceased, from the 29th of May, to see the *Tierra Austral*, or *Archipelago of the Great Cyclades*; and was bearing away to the west, between the fifteenth and sixteenth parallels of latitude, when in the night, between the 4th and 5th of June, by means of the moon-light, he saw breakers to the south, within the distance of half a league, and a very low sandy coast. He immediately stood upon the contrary tack, and at day-break resumed his course to reconnoitre the land, which prudence had obliged him to turn from at night. “ We saw it again, says he, at 8 o’clock, at the distance of a league and a-half. It was a small sandy islet, which scarce rises above the level of the water, and from that very circumstance, forms a dangerous strand for vessels, by night, or in hazy weather. It is so flat, that at two leagues off, with a very clear horizon,

horizon, it is seen only from the mast head; it was covered with birds. I called it *Diana's Bank*. (Latitude $15^{\circ}\frac{1}{4}$ south, longitude $148^{\circ}\frac{1}{4}$ east of Paris.) BOUGAINVILLE. 1768.

On the 4th and 5th, many pieces of wood, and unknown fruits, passed by the ship, and the sea was entirely calm, though there was a strong S. E. wind; from which circumstances together, I was induced to think that there must be land to the south-east, and at no great distance from us.

On the 6th, at half an hour past one, as I was bearing down constantly to the west, a bank appeared a-head, and warned me to change my course; it was, at least, half a league in extent, and stretched from W. $\frac{1}{4}$ S. W. to W. N. W. Some even thought that they perceived a low land to the S. W. of the breakers. I steered northward till four o'clock, and then I set our head again to the west. At half past five new breakers were seen, from the mast head, to the N. W. and N. W. $\frac{1}{4}$ W. about a league and a half from us; but we continued to bear towards them, in order to take the better view. We found they extended from N. N. E. to S. S. W. above two miles, and did not terminate there; perhaps they reached to those which we had discovered three hours before. The sea broke furiously on these shoals, and, at different distances, some heads of rocks appeared above the water. (The latitude of the middle of these two shoals, was $15^{\circ}\frac{1}{8}$ degrees; and the longitude $146^{\circ}\frac{1}{4}$.)

From all the indications M. Bougainville had perceived for three days, he concluded that he could not be far from some extensive land,

BOUGAIN-
VILLE.

1768.

land, and that he must already have it to the S. E. of him. He had, in fact, passed about four degrees beyond the meridian of the eastern coast of New Holland, and New Caledonia lay nearly south-east to him.

In this situation prudence enjoined, that he should avoid a coast, which did not promise any supply of provisions: it was decided to steer N. E. $\frac{1}{4}$ N; and the project of pushing further west, between the 15th and 16th parallels, was given up. They continued this course for three days, and ran about 100 leagues without seeing any land; but at break of day, on the 10th, they discovered one which extended from the east to the north-west.

“ A great while before dawn (says M. de Bougainville) we had been informed, by a delicious odour, of the vicinity of this land, which formed a large open gulph to the S. E. I have seldom seen a country that presented so beautiful a prospect; a low land, divided into plains and groves, extended along the sea-shore, and afterwards rose in an amphitheatre up to the mountains, whose heads were lost in the clouds. These were divided into three stages, and the highest chain was more than twenty-five leagues up the country. The melancholy state to which we were reduced, did not allow us time either to visit this magnificent country, which had every mark of riches and fertility, or by steering west, to seek a passage to the south of New Guinea, which might open to us a new and short passage to the Molucca Islands, through the gulf of Carpentaria. Our most cruel enemy was with us in the ship, and that was famine.”

The

The gulf, at the bottom of which they had approached the land was named *Cul-de sac de l'Orangerie*. (Latitude 10° , longitude $147^{\circ} \frac{1}{2}$.)

BOUGAIN-
VILLE.

1768.

The whole of the 10th they had a calm, and a strong swell from the south-east carried the vessel towards land: at four in the afternoon, they were not more than three quarters of a league from a small low island, the eastern point of which joins to a bank, that extends two or three leagues eastward.

On the 11th, in the afternoon, they had managed to get off from the shore, about four leagues; but even at two leagues could find no bottom.

“Several canoes were paddling along the coast, on which large fires were lighted continually: there is turtle here, for we found the remains of some in the belly of a shark,”

They met with violent contrary winds till the 16th, and were continually enveloped in a very thick fog; but in the morning of the 16th, they perceived land from the N. to the N. E. $\frac{1}{4}$ E. of the compass, and stood off in order to make round it, the wind continuing to blow from the S. E. and E. S. E.

The 17th, at sun rise, they were out of sight of land; but between nine and ten, a small island was perceived in the N. N. E. distant five or six leagues; and another in the N. N. W. about nine leagues distant. Soon after, another small island was discovered in

BOUGAIN-
VILLE.

the N. E. 5° E. at four or five leagues distance, which, from its resemblance to *Ushant*, received the same name.

1768.

“ We continued our course to the N. E. $\frac{1}{4}$ E. (says M. Bougainville) hoping to double all the lands; when, at eleven o'clock, we discovered a new one in the E. N. E. 5° N. and breakers in the E. N. E. which seemed to come and join *Ushant*. On the north-west of these islands was seen another chain of breakers, which extended for half a league. The first isle seemed, to us, to be also within two chains of breakers.”

No land was seen all the morning of the 18th, and they began to hope that they had doubled the small island and the breakers they had seen the days before; but, at one in the afternoon, an island was discovered in the N. E. $\frac{1}{4}$ N. of the compass; and soon after, nine others showed themselves in a line with the first.

“ There were some as far as to the E. N. E; and behind these islands extended a higher land to the N. E. about ten leagues off. We stood off and on all night; and the following day offered us the same prospect, of a double chain of land running nearly E. and W. namely, in the southern part, a set of small islets, joined by reefs, just even with the water; and to the north of these the higher lands were extended. The land, which we discovered on the twentieth, seemed to run less to the south, keeping rather to the E. S. E. which was an amendment in our position.”

They

They took large tacks in order to get upwards, and no more land was seen till the 25th, at sun rise, when it was perceived from the N. to the N. N. E.

BOUGAIN-
VILLE.

1768.

“ The coast was no longer low; on the contrary, we perceived a very high land which seemed to terminate in a large cape; probably it ran afterwards to the north. We steered all day to the N. E. $\frac{1}{4}$ E. and to the E. N. E; and now saw no more land to the east of the cape, which therefore we doubled with a satisfaction that I cannot paint.”

The 26th, in the morning, the cape being greatly to leeward of us, and seeing no more land to windward, we were able, at length, to steer N. N. E. We named this cape, which we had long so earnestly desired, *Cap de la Deliverance* (Deliverance Cape;) and the gulph, of which it forms the eastern point, *Golfe de la Louisiade* (the Gulph of Louisiada.) It was a land which we had well deserved to name. (The latitude of *Deliverance Cape* was $11^{\circ} \frac{1}{4}$ south latitude, and east longitude $152^{\circ} \frac{1}{4}$.)

N

DISCO-

D I S C O V E R Y

OF

BOUGAINVILLE'S ISLANDS AND STRAITS,

TO THE

NORTH-WEST OF THE ISLANDS OF SOLOMON.

BY M. DE BOUGAINVILLE,

IN M.DCC.LXVIII.

(See Charts I, II, III, IV, VIII, and IX.)

BOUGAIN-
VILLE.

1768.

M. DE BOUGAINVILLE, after having doubled *Deliverance Cape*, belonging to the land of *Louisiada*, directed his course to the N. W. He had run sixty leagues in this direction, and had come to about eight degrees of latitude; when, on the morning of the 28th, he discovered land in the N. W. distant nine or ten leagues. It was very soon perceived to consist of two islands; the most southward of which was, at 8 o'clock, in the N. W. $\frac{1}{4}$ W. point of the compass. (See Chart II.)

“ At

“ At the same time (says M. Bougainville) another long and high land became visible from the E. S. E. to the E. N. E. This ran northwards; and as we advanced towards it in the N. E. we saw it extend itself further, and turn to the N. W. A space was, however, discovered, where the coast was interrupted, which might be either an open channel, or the mouth of a large bay; for some fancied, that they could distinguish land at the extremity of it. On the 29th in the morning the coast, which we had to the east, continued to extend itself towards the N. W. yet without any thing that bounded our horizon on that side. I wished to make up to it, and sail along, in order to find anchorage; and, at three in the afternoon, being about three leagues from shore, we had found a bottom of white sand, and broken shells, in forty-eight fathoms.”

BOUGAINVILLE.

1768.

They then bore down to a creek which seemed commodious, but it fell calm. They made tacks all night; and on the 30th, at day-break, boats were sent out with a detachment to visit several creeks, which, from the bottom found out at sea, were expected to afford good anchorage.

“ Towards 10 o'clock a dozen canoes, of different sizes, came pretty near the vessel; yet without choosing to lie quite close to her: in the largest, were twenty-two men; in the ordinary ones, eight or ten; and there were some of a small size, which carried only two or three. These canoes seemed well constructed, were made very high at each end, and were the first we had seen in those seas without an out-rigger. These islanders are as black as the negroes of Africa; have their hair curled, but long, and sometimes red; they wear

BOUGAIN-
VILLE.

1768.

bracelets; and on their foreheads and necks small plates, I know not of what substance, but it looked white. They were armed with bows and spears, gave great cries, and seemed by no means of a pacific disposition."

The officer who had commanded the boats reported that he had found, almost every where, a good bottom of mud and sand, in 30, 25, 15, and 11 fathoms, but on an open coast; in all the part he had surveyed they had found no river, and only a single rivulet. This open coast cannot well be approached, the sea breaks upon it in every part, mountains extend their declivities to the very water's edge, and the land is entirely covered by wood. In the small creeks some huts were seen, but they seemed very few in number, for the islanders live upon the mountains.

"Our small boat was followed, for some time, by three or four canoes, which seemed to meditate an attack: one of the Indians even raised himself several times, in order to throw a spear, but he did not do it; and the boat returned without having had any contest."

A strong current setting in from the north, and tending to the south-east, gave hopes of a passage in the part where no land appeared.

On the 1st of July, at ten in the morning, the wind served to bear down to the opening, which now promised a free passage; and they fell into a strait, formed by the lands they had hitherto followed

on

on the eastern side, and by those on the west, which were seen to extend to the north-west; its breadth was about four or five leagues.

BOUGAIN-
VILLE.

1768.

“ A very strong tide, in the direction of S.E. and N.W. forms a race in the middle of this passage, which runs across it, and makes the waves rise and break as if there were rocks just at the surface. I called it *Raz Denis* (Denis Race) from the name of my boatswain. The *Etoile*, which passed it two hours after the *Boudeuse*, and more to the west, found herself in five fathoms on a rocky bottom. There was such a sea in that place, that we were obliged to shut down the hatches on board the *Boudeuse*; on sounding we found forty-four fathoms, with a bottom of sand, gravel, shells, and coral.

“ The eastern coast began now to grow lower and to turn to the north; and when we were about the middle of the passage, we perceived a fine bay, which promised a good anchorage [A].”

An adverse current, and a deluge of rain, which hid both the sun and land from their view, opposed their project of gaining the bay; but between one and two in the afternoon they sent out armed boats to examine and sound it.

“ The boats, before they entered the bay, ranged along the northern point, formed by a peninsula, under which they found a bottom of sand and coral, in from nine to thirteen fathoms. They then proceeded into the bay, where they found an excellent anchorage, about

[A] See the plan of it in Plate IV.

a quarter

BOUGAIN-
VILLE.

1768.

a quarter of a league within it, from nine to twelve fathoms, grey sand and gravel, where you are sheltered from the S. E. to the S. W. as you pass to the east and north.

“ While they were employed in sounding, they saw, on a sudden, ten canoes appear at the entrance of the bay, in which were about one hundred and fifty men, armed with bows, lances, and shields: they came from a creek, where is a small river, the banks of which are covered with huts. These canoes advanced in good order, making towards our boats by means of their oars; and, when they imagined themselves sufficiently near, adroitly separated themselves into two parties in order to surround them. The Indians then gave horrid shrieks, and seizing their lances, began an attack, which they must have expected to find mere sport, against a handful of men. A volley was directed at them, which did not stop their progress; and they continued to discharge their arrows, and their lances, covering themselves with their shields, which they imagined would defend them; but a second discharge put them to flight, and several threw themselves into the sea and swam ashore. Two of their canoes were taken, which are long, and well built, and very high at each end, so that by turning either towards the enemy, they obtain some shelter from their arrows. On the fore-part of one of these canoes, was the head of a man carved; the eyes were of mother-of-pearl, the ears of tortoise-shell, the lips were stained of a very bright scarlet, and the whole had the appearance of a mask, with a very long beard. In these canoes were found bows, arrows in great numbers, lances, shields, cocoa-nuts, and other fruits of kinds unknown to us; areca, leaves of betel, lime, small implements used by these Indians;

Indians; nets, with very fine meshes artfully woven, and the jaw of a man half broiled. These islanders are black and have curling hair, which they dye white, yellow, and red: their courage in attacking us, their custom of carrying arms, both offensive and defensive, and their skill in using them, prove that they are almost always in a state of war: besides which, we have generally observed throughout this voyage, that the blacks are much more savage than those tribes that approach more nearly to white. These men were naked, except a piece of matting tied round their waists: their bucklers are oval, made of rushes plaited one over another, and so closely united, that they must be impenetrable to arrows. We called the river and creek, whence these brave islanders made their fall, *La Riviere des Guerriers* (Warriors' River); the whole island and bay, *Isle & Baie Choiseul* (Choiseul Island and Bay). The peninsula, to the north, is entirely covered with cocoa-nut trees."

BOUGAIN-
VILLE.

1768.

The *Boudeuse* and *Etoile* continued their course through the strait, which opened as they went on: the latitude of the middle of the strait was $6^{\circ} 50' S.$ the longitude $153^{\circ} \frac{2}{3} E.$ As soon as they were through the passage, a long coast was discovered to the west, covered with mountains, whose summits were lost in the clouds. On the 2d of July, in the evening, the land of Choiseul Island was still in sight; but in the morning of the 3d nothing was to be seen but the new coast discovered the evening before, the height of which was surprising, and its direction N. W. $\frac{1}{4}$ W. Its most southern part now appeared to end in a point, which lowered gradually and formed a remarkable cape. This cape was called *Cap l'Averdi*: its latitude is $5^{\circ} 32'$; its longitude $152^{\circ} \frac{1}{2} E.$

On

BOUGAIN-
VILLE.

1768.

On the 4th, the first rays of the sun discovered to us more land, further to the west and north than cape *Averdi*; the coast less high than the former, and running in the direction of N. N. W. Between the most southern point of this land, and cape *Averdi*, was seen a great void space, which must form either a passage or a great gulf. Beyond this opening, but at a very great distance, the summits of some high lands were perceived; and behind the new coast another of greater height, lying in the same direction, by which they judged, that this new land was an island.

“ In the afternoon three canoes put off, and came to reconnoitre our vessels, each of them carrying five or six negroes: when they came within musquet shot they stopped; and it was not till after they had staid there an hour, that our repeated invitations could prevail on them to come nearer. Some trifles which we threw to them, fastened to pieces of wood, contributed to give them a little confidence; after which they came up to the ship, showing some coconuts, and crying *Bouca, Bouca, Onellé*: these words they repeated continually; and, after some time, we did the same, which seemed to give them pleasure. They did not stay long by the ship, but made signs that they would go and fetch us some coconuts: we applauded their design; but hardly had these treacherous men got to the distance of twenty paces, when one of them shot an arrow, which happily did not take place; they then rowed off as fast as possible, and we despised them too much to punish them.

These negroes were entirely naked: they have short woolly hair; their ears pierced and drawn down; and many had their hair stained red,

red, and white spots painted on different parts of their bodies. It appears from the redness of their teeth, that they chew the betel; and we had seen that the inhabitants of *Choiseul Island* use it also; for we found in their canoes small bags of the leaves, with areca and lime. We had from these bows of six feet long, and arrows armed with very hard wood. Their canoes are smaller than those of *Warriors' Creek*, and we were surprised at not seeing any familiarity in their construction: the latter had the ends much lower; they are without out-riggers, but large enough to carry two men a-breast. This island, to which we gave the name of *Bouca*, seemed extremely well peopled, if we may judge from the multitude of huts with which it is covered, and by the signs of cultivation we perceived. A beautiful plain, on the declivity of a hill, planted entirely with cocoa and other trees, offered us the most pleasing prospect; and I was very desirous to find anchorage on this coast, but a contrary wind and a very rapid current bore us away visibly from it, towards the N. W. The latitude of the northern part of this island was $5^{\circ} 7'$, the longitude $152^{\circ} \frac{1}{2}$ E.

During the night they lay-to as close as possible; but the next morning the island *Bouca* was already at a great distance to the E. and S. E. The evening before they had perceived, from the mast head a small island, which extended from the N. W. to the N. W. $\frac{1}{4}$ W. of the compass. "Besides, says M. de Bougainville, we could not now be far from New Britain, where it was that we depended upon finding refreshment."

O

In

BOUGAIN-
VILLE.

1768. In the afternoon of the 5th, two small islands were seen in the N. and N. N. W. distant ten or twelve leagues; and, almost at the same instant, another, more considerable, between the N. W. and W. The latter was but seven leagues off, its coast high and appearing to offer many bays. As their wood and water were now exhausted, and their sick grown worse, it was resolved to stop here; and they bore down, in order to put in there the next day.

On the 6th, they anchored in a bay situated to the west, and near the southern point of the great land which had been discovered the evening before.

This was named *Baie de Praslin* (Praslin Bay), and belongs to New Ireland; being the same in which Captain Carteret had anchored the 28th of August, 1767, and to which he gave the name of *Gower Harbour*: it is situated in the great gulf, which, more anciently, Dampier had called *St. George's Bay*. The latitude of the anchorage was $4^{\circ} 50'$, the longitude $150^{\circ} \frac{2}{3}$ E.

We will not follow M. Bougainville any further; after having provided for the most pressing necessities of his men and ships, he bore up again to the east, that he might pass to the north of that part of *New Britain*, which Carteret named *New Ireland*: he sailed along the whole northern coast of *New Guinea*; and crossing the Archipelago of the Moluccas, passed through a new strait, and arrived at Batavia the 28th of September.

SECOND

SECOND DISCOVERY

OF THE

ISLANDS OF SOLOMON,

UNDER THE NAME OF

ISLANDS OF THE ARSACIDES.

BY M. DE SURVILLE.

IN M.DCC.LXIX.

(See Chart I.)

Fragment of Notes, historical and geographical, subjoined to the Instructions delivered by Order of the King, the 26th of June, 1785, to the Count de la Pérouse, for the Voyage of Discoveries.

“ No. 32. **S**URVILLE first saw the Archipelago, which he SURVILLE.
 “ named the Islands of the Arfacides, on the 7th 1769.
 “ of October, 1769. The land seemed to him very high, and co-
 “ vered with wood. At the moment of discovery, the ship, accord-
 “ ing to his Journal, was in latitude $6^{\circ} 57'$ S. and computed longi-
 “ tude $152^{\circ} 28'$ E. of Paris.” But this longitude, corrected by
 O 2 that

SURVILLE. that of New Zealand, determined by Captain Cook, and afterwards
 1769. where Surville put in, must be $153^{\circ} 45'$ at the point where he first
 came to land (the *Island de la Premiere Vue*), which is only a few
 leagues to the N. W. of his *Port Praslin* [A]."

" He proceeded along the coast in a south-eastern direction, and found a harbour, formed by an assemblage of islands, where he anchored, and named it *Port Praslin*. In his way, from the time of his landing to his arrival in this port, he had met with a number of small islands, which, at first sight, appeared to form a part of a continued land, but which afterwards he discovered to be separate, and about three leagues from the main land." (See the Plans, No. 8A—8B—8C—8D).

N. B. *These Numbers refer to a Collection of MS. Charts and Plans, which had been given to M. de la Pérouse.*

" Thursday the 12th he anchored in *Port Praslin*, of which he has given us a plan, No. 7 [B]. The islands which form it are covered with trees, and at high water are partly overflowed."

" The natives of the country appeared very suspicious; and having given to understand, by signs, that the French might take in water at a place they pointed out at the bottom of the harbour; they

[A] It will be shown hereafter in the Analysis of a new Chart, that this corrected longitude is still too little by $1^{\circ} \frac{1}{2}$.

[B] See Plate IV. of this work.

led them there merely to entrap them in an ambuscade. A very SURVILLE.
 brisk combat ensued, and Surville's people returned into their boats;
 several of them were wounded, and they were necessitated to kill 30
 or 40 of the savages." 1769.

The inhabitants of these islands are, in general, of the negro kind; have black woolly hair, flat noses, and thick lips. They powder their hair with lime, which, doubtless, burns it, and makes it look red [c]. The custom of powdering was also observed by M. Bougainville, among the inhabitants of *Choiseul Bay*, on the north-west coast of the same land. They wear bracelets of shells for ornament; and whole shells threaded, round their necks; and girdles, made of human teeth, which, without doubt, are those of their enemies whom they have made prisoners of war. In general they have their ears, and the cartilage of the nose, pierced with a large hole, in which they wear bunches of flowers, or other ornaments. Their arms are wooden lances of eight or nine feet long; clubs of the same materials; bows; and arrows of reeds from forty to forty-four inches long, and armed at the point with a sharp bone. They carry a buckler made of rushes and bark, two or three feet long, and one broad. Their canoes are very light, and are from fifteen, or twenty-five, to sixty-five feet in length; the joinings closed with a kind of pitch, or mastic, which perfectly excludes the water."

"*Surville* could not obtain any refreshment from these people; but he seized a young savage, of about fourteen or fifteen years old,

[c] This may explain the beautiful light hair which was so much admired by the Spaniards, in some of the islands discovered by Mendana and Quiros.

whom:

SURVILLE. whom he intended to employ as an interpreter, in his subsequent discoveries.

1769.

“ He quitted *Port Praslin* the 21st of October, after eight days refreshment, and continued to navigate along this land, towards the E. S. E. and afterwards towards the S. E. In many places he lost sight of the coast; and not perceiving any land beyond in these spaces, he concluded, very reasonably, that these gaps, or openings, indicated either bays, or very deep gulfs, or channels, which divide these lands into several islands, forming, altogether, a large Archipelago. As he sailed along, canoes put off from the shore and came up to his ship: he made some little presents to the savages who were in them; but every where observed marks of the greatest distrust. These people are great thieves, as are most of the islanders in the *great Equatorial Ocean*. *Surville* observed, that the young Indian he had taken from *Port Praslin*, could not make himself understood by the inhabitants of this coast, and was much afraid of them: whence he judged, that these countries are very extensive, and that the people of the several islands in this archipelago have no communication, but in making war against each other.

“ When he came to the island which he named *des Contrariétés* situated about $4\frac{1}{2}$ degrees to the east, and two degrees to the south of *Port Praslin*, he found a people like the former, strong, perfectly naked, from five to five and half feet high, with woolly hair powdered with lime; the same ornaments, and the same arms. These went aboard his ship with great boldness, accepted whatever was offered, and endeavoured to steal whatever was not.

The

The country appeared very agreeable in this part; and the fragrance of the aromatic plants which reached the vessel, made Surville regret that he could not land in a gulf, which he thinks was situated to the west of those islands which he named *The Three Sisters*.”

SURVILLE.

1769.

“ When he had reached the height of 11 degrees of latitude, and 159 of longitude, east of Paris [D], he discovered a large cape, before which lay two small islands; and from this point he saw the country extend, and turn off to the west and south-west. As he perceived no land beyond this cape, and was very desirous to find an open sea, he named the islands that he saw, *Islands of Deliverance*, and the Cape, *the Eastern Cape of the Arfacides*.”

“ On the 8th of November, he had lost sight of land.”

“ Such is the sketch of the discovery of Surville, with which a land seen by M. de Bougainville is connected, which is the north-west part of the *Land of the Arfacides*, called by him *Choiseul Island*. (See his Voyage, 4to. edit. p. 264).”

“ M. de la Pérouse will also consult the account which Figueroa has given of Mendana's discoveries, in his first voyage of 1567. There is every reason to believe, after many combinations and comparisons, that the famous islands, known under the name of *Solomon's Islands*, which Mendana discovered at that period, are the same which were re-visited by Surville, in 1769.”

[D] About 160 degrees.

“ M. de

SURVILLE.

1769.

“ M. de la Pérouse will find, in the collection of MS charts, which have been communicated to him, one in particular (N° VII.) of the discoveries of the moderns in this part, on which an attempt has been made to lay down those of Mendana, as far as they could be traced from the descriptions given by Figueroa, Herrera, and other Spanish historians, who are not agreed either about the particular extent of the several islands in this Archipelago, or their relative position to each other ; but it was enough to show the presumed identity of Mendana's discoveries and those of Surville's. It is not doubted, that the researches which M. de la Pérouse will make in these parts, will establish as a truth, what is here presented only as a probability.”

THIS ABRIDGED Extract of the Discovery of the Isles of the Arfacides, was sufficient for M. de la Pérouse, to whom was sent, at the same time, a copy of Surville's chart, on which the route of that navigator was traced ; but we conceived, that the reader's curiosity would not be satisfied by this sketch. Though it promised but a long and tedious labour to abridge four very voluminous journals, three of which are put together without order or style, and loaded with the most minute details of the daily course and manœuvres of the vessel, we have zealously fulfilled this task, with the hope of fixing the public opinion upon a discovery not sufficiently known, but undoubtedly deserving to be so, since every thing conspires to prove, that Surville's *Isles of the Arfacides* are the *Islands of Solomon*, discovered by Mendana, in 1567 [E].

In

[E] The four Journals, whence we have taken our abridgement, make a part of the collection, entitled *Depôt général des Cartes, Plans, et journaux de la Marine, et Plans*

In the year 1783, an abstract of Surville's Voyage [F] had been published at the end of the *New Voyage to the South Sea*, by Messrs. *Marion and Chevalier du Cleffneur*. It is there said, at p. 255, that this abstract is taken from a manuscript account, given by *M. Monneron*, and found in the library of *M. de Maleherbes*, who was so kind as to communicate it. To this abstract is added, a reduced copy of the chart of the *Isles of Arfacides*, discovered by Surville. This work is published without the author's name, but as it was printed with the approbation, and under the privilege of the Royal Academy of Sciences, it carries with it the character of authenticity. Thus, from 1783, the English might have had an entire and certain knowledge of Surville's discovery. If it be objected, that English seamen might very easily be ignorant of a work published in France, we shall answer, that at least they could not be uninformed of what

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Plans des Colonies. The first, which ends at the arrival on the coast of Peru, is the original Journal, written by the hand of Surville's captain and first supercargo of the ship *St. John the Baptist*, (under the N° M. 34 of the collection). The second is that of *M. William Labé*, first lieutenant and second supercargo, who brought the vessel back to France after the captain's death. (*Port folio 78. Artic. 10.*) The third is that of *M. Pottier de l'Horme*, second lieutenant. (*Port fol. 78. Art. 11.*) and the fourth is a copy of that of *M. P. Monneron*, who embarked in quality of writer. (N° M. 35.) The first and last came from the private collection which the late *M. Après de Manevilette*, ancient captain of the East-India Company, had formed at l'Orient, which the king had obtained in that officer's life time, to be added after his death to the *Dépôt général*. The Journal of *M. Pottier de l'Horme*, and that of *M. Monneron*, are accompanied with charts, views, and designs; some of which, relating to the *Islands of Arfacides*, we have had engraved.

[F] In one vol. 8vo. with charts and figures. *Paris, chez Barrois l'ainé, 1783.*

P

their

SURVILLE. their countryman, Mr. *Alexander Dalrymple*, so usefully employed on every thing that concerns navigation, had published at London in 1769. 1785, for the use of the English navigators employed in the China trade [G].

We will extract, from the four Journals abovementioned, whatever relates to the discovery of the Archipelago of the *Arfacides*, and shall pass rapidly over the other circumstances of *Surville's* Voyage. If any point or fact occurs, on which the Journals do not agree, we will report the two versions; but in general they differ only in style, and in their greater or less degree of prolixity.

EXTRACT FROM THE JOURNALS OF THE SHIP ST. JOHN THE BAPTIST.

Commanded by M. DE SURVILLE, in 1769.

(See Plates III. IV. V. VI. VII. and VIII.)

“SURVILLE had fitted out the vessel *St. John the Baptist*, of 700 tons, and carrying 26 twelve pounders, and six smaller guns, in the *Ganges*, on his own account and that of MM. *Laws* and *Chevalier*;

[G] See note 2, subjoined to the account of Mr. *Shortland's* Voyage.

the

the object of the expedition was a particular commercial speculation. SURVILLE.

1769.

“ He had quitted the bay of Angely, March 3, 1769, to go to Mazulipatnam, and then to Yanäon, and beyond that to Pondicherry, where the vessel completed her cargo.

“ He sailed from Pondicherry the 2d of June; and in the month of August put into the Bashee Islands [H], situated to the north of the Philippines. When he had laid in some refreshments, he left it again the 24th of the same month, and steered to the south-east.

“ They met with frequent calms in their passage. On the 7th of September, the vessel was surrounded with sharks all the day; they caught six: birds were also seen, which the French seamen call *Batteurs-d'ailes*.

“ The same day, in $8^{\circ} 20'$ north latitude, and $130^{\circ} 46'$ computed longitude east from Paris, they had, for the first time, north-east variation, and it was observed at $1^{\circ} 40'$.

“ The following day, a flight of small birds, of an unknown species, was seen in the morning.

[H] Dampier, who touched at these islands in 1687, called them *Bashees*, from the name of a fermented liquor, which the natives use much, and sometimes intoxicate themselves with it.

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1769.

“ From that day to the 6th of October, they had constantly signs of land; sometimes various kinds of sea birds; sometimes wild fruits, pieces of wood, and even whole trees stripped of their bark, but having their roots and branches. An uncommon kind of poly-pus was often seen, appearing like the empty skins of snakes; they usually suffered themselves to float as the water happened to carry them, and looked as if they were dead; at other times they had a motion as quick as that of a serpent, but this movement very soon ceased, and they returned to their state of apparent insensibility.

“ They passed the line in the night, between the 23d and 24th of September, in the longitude of $144^{\circ} \frac{1}{2}$ E. from Paris, according to Surville's reckoning; $146^{\circ} \frac{1}{4}$, according to that of M. Labé and M. Pottier; and $145^{\circ} 32'$, according to M. Monneron. The variation of the needle was seven degrees to the north-east.

“ Hitherto the south-west monsoon had regularly blown with very few slight variations. When they came to the line, they met with contrary winds, dead calms, and heavy rains; so that they remained in a manner stationary under the line to the end of September.

“ The currents had run with some violence to the south from the time when they began to have signs of land; but from the 1st to the 6th of October, their direction changed; and it was perceived, from the difference of the latitudes taken by observation, and those made by their reckoning, that they tended sensibly to the north, though they steered almost invariably to the south-east.

“ It

“ It could no longer be doubted, that they were near land : every thing seemed to declare it ; and the crew very ardently wished it, in hope of obtaining refreshments, and enjoying a respite of some days from the fatigues they experienced, and some relief from the scurvy, which began to make such progress on board as rendered that assistance very necessary. SURVILLE.
1769.

“ On the 6th, at sun-set, some persons imagined they saw land to the S. S. W. and opinions were divided about it, but the next morning, at day-break, all uncertainty was at an end, and it plainly showed itself from the S. E. to the W. S. W. point of the compass. (Variation 9° north-east) [I]. They sounded, but found no bottom. The winds blowing from the east soon obliged them to tack about.

“ At noon, the observation of the sun's meridian altitude informed them that they had come to $6^{\circ} 56' \frac{1}{4}$ of south latitude ; and that, in the 24 hours, the currents had driven them southward half a degree : according to reckoning, they were $151^{\circ} 30'$ E. from Paris [K].

[I] The abstract of Surville's Journal, printed at the end of Marion's Voyage, gives the variation of nine degrees. On the 6th, it had been concluded 12 degrees, from an observation of the Azimuth, according to Surville's Journal ; 13 according to Labé ; $12^{\circ} 4'$ according to Pottier de l'Horme. Monneron gives it also as 12° ; but he adds, “ I believe it too much : subsequent observations made in sight of all the coasts, have not given more than 9° .”

[K] We take a mean latitude between those of the four Journals : the difference between the extremes is four minutes. The longitude given is also a mean taken, and we shall continue the same method throughout the narrative. The 7th of October, at noon, Surville's longitude was $150^{\circ} 15'$; Labé's $152^{\circ} 28'$; Pottier de l'Horme's $151^{\circ} 49'$; Monneron's $151^{\circ} 29'$. The error of the mean longitude is about $3^{\circ} \frac{1}{4}$ west.

At

SURVILLE. At the same time they took the bearings of the land: an island, which they named *Isle de la Première Vue* (First-sight Island) lay at the S. $\frac{1}{4}$ S. E. point of the compass. A little further, a pretty high mountain, which they called *le Gros Morne*, afterwards supposed to be an island, bore S. 5° W. and there began a chain of mountains, which extended as far as the eye could reach, to the point of W. $\frac{1}{4}$ S. W.

“According to the distance which they stood at noon from *Première Vue*, its latitude may be fixed at $7^{\circ} 15' \frac{1}{2}$; its computed longitude was $151^{\circ} 30' \frac{1}{2}$ [L].

“Different opinions were formed about the lands which were now in sight; but after having attentively examined the route of Dampier to the east of New Britain, according to which he did not go higher than to the latitude of 6° ' south, they agreed in the idea, that the lands seen in $7^{\circ} \frac{1}{4}$ could not belong to the discoveries of the English navigator: and as it was not known that any voyager had mentioned lands between the isles of *New Britain* and the *Tierra Austral* of Quiros, it was concluded that these now in sight had not been observed by any navigator [M].

[L] The true longitude was near 155° . (See the subjoined analysis of a new chart, and the chart itself, N^o IX. See also Chart VIII.)

[M] The copy of M. Monneron's Journal now before us, and dated at Paris, October 4, 1771, has the following note. “We find, however, in the voyage of M. de Bougainville, that he had knowledge of a part of the same land.”

“They

“ They stood off and on till the next day, which was the 8th, SURVILLE.
with winds at E. S. E. and E. N. E. endeavouring to beat up to 1769.
Première Vue. In the morning they passed over a bank, at the be-
ginning of which they found 27 fathoms, with a bottom of red
coral, mixed with shells and sand. They sounded again a moment
after, and had 31 fathoms, but they were soon out of reach of any
bottom. The sea appeared discoloured to the south-west; and it
was conceived that there must be a similar bank in that part.

“ In the tacks they had made since the 7th, they had not at all
made up against the wind; on the contrary, it was perceived, by
the bearing of the lands, that the currents had carried the vessel
westward; and the latitude obtained by observation at noon, com-
pared with their reckonings, proved, that in the same time it had
also been driven seven or eight minutes to the south. The observed
latitude was $7^{\circ} 12'$, and the computed longitude $151^{\circ} 4'$: at the same
period, the land appeared at a considerable distance, and bore from
E. S. E. 3° E. to W. N. W. 3° W. (variation 9° N. E.) In the
afternoon they approached towards it, and at five o'clock were not
more than two leagues from the *Isle Première Vue*, which lay to the
S. E. $\frac{1}{4}$ E. 2° S. of the compass. They found a good bottom in 45
fathoms, and the line brought up some little shells like talc, with
fragments of red shells; to the south of the island were observed
four islets, and the *Gros Morne*, which seemed to form the western
point of an immense bay.

“ The winds shifted, and for a part of the day they were be-
calmed; Surville took advantage of this circumstance to detach a
party

SURVILLE. party to *Première Vue*, and manned the yawl with its usual complement, and an addition of five soldiers, under the command of M. Labé. 1769. The boat put in at a small creek on the northern coast of the island, but as the place did not seem favourable for landing, they steered without success along the western coast; they were then desirous to regain to the northern creek, but a strong swell coming on, the yawl was in danger of being lost, and therefore returned to the ship. The commanding officer reported, that the island is uninhabited, but covered with fruit trees of the most delicious fragrance; some fruits shaped like lemons were distinguished, and others hanging in pods of about a foot long, and an inch thick; they observed also several sorts of parrots, and other birds, among which was one of the size of a blackbird, with the plumage of the body black, but that of the head and neck as white as snow. They saw no river in all that part of the island, but fell in with several islets, and banks of coral, within musquet-shot from the main island. Several sorts of fish were distinguished in the water.

“ During the night, it was observed, that a part of the sky behind the *Gros Morne* seemed lighter than the rest, and it was supposed that this extraordinary brightness might be the effect of some volcano.

“ On the 9th, they made up a little to the east, and discovered new lands, which were very high; and to the south of *Première Vue* some very high mountains, at the distance of 15 leagues. They could distinguish at the same time several isles and islets, apparently detached

detached from some continent, or from other islands of much greater magnitude. SURVILLE.

1769.

“ They stood off and on from the 9th to the 13th, with light airs, calms, and currents, keeping in sight of the lands already discovered, and of some new ones, but not daring to bear down in this uncertain weather, upon a coast apparently much broken, and probably full of banks and reefs. Some lands were seen, which were lower than the rest, and large openings, which appeared to be either the mouths of great rivers or channels between the islands [N]: Soundings had frequently been taken at different distances from land, but no bottom found with 60 or 70 fathoms of line.

“ On the 13th, Surville determined to examine one of the openings, which appeared to promise a harbour or a passage more than the other parts of the coast [o]; M. Labé was therefore sent out with the yawl, and soon made the signal for finding anchorage; and as the ship was, at the time, not far from the coast, it was soon brought to the place which the boat had pointed out.

“ In going thither, a canoe was seen to come out of a creek, with only one man in it, who approached within call, and made

[N] Surville says, “ I confess myself unable to discern whether the whole that we see forms a kind of continent, surrounded by a prodigious number of islands, some flat, and others mountainous; or whether it is not an assemblage of islands, with considerable spaces between them at intervals: all that I regard as certain is, that no person has seen it before us.”

[o] It is the opening, marked A, in the seventh view, Plate V.

Q

signs

SURVILLE. 1769. signs to the people in the ship to go on shore, while they, on their part, endeavoured to prevail on him to go on board, and waved a white flag, which is a sign of peace universally acknowledged, even by the savage nations; but nothing could persuade him to accept their invitation.

“ When M. Labé returned on board, he was employed to point out the course to the anchorage. The first soundings were within half a league of shore, in 55 fathoms, on a bottom of small coral. The wind blew very gently from the south-east, and fell entirely calm while the vessel was entangled with the islands which form the entrance of the harbour. They cast anchor in 24 fathoms, on a bottom of very moving sand, too near the harbour's mouth, with a reef on each side. The western point of the island on the larboard, bore E. $\frac{1}{4}$ N. E. at the distance of a quarter of a league, and its reef extended to the N. E. $\frac{1}{4}$ E. 3° E. The point of the island on the starboard, bore N. W. distant one mile, and its reef ran as far as to N. N. W. 2° N. the head of the harbour bore S. S. W. 5° S. and seemed to be distant about two leagues [P]. They soon perceived that the vessel dragged its kedge anchor, and was carried on the

[P] Three or four leagues, according to *Surville's Journal*; three leagues, according to *M. Labé*; and only two, according to *M. Pottier de l'Horme*; the latter distance is that upon the plans which accompany the Journals. If we refer the bearings of the first anchorage to the plan, we shall find that they do not agree; but *Surville* declares, that this plan cannot be exact, being taken only by the eye, without measuring the angles, merely to give an idea of the harbour.

western

western reef, till it was within pistol-shot of it, when she was brought up by throwing out an anchor from the bow.

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1769.

“ On the island to the right-hand which is covered with trees, some Indians had been observed as they entered the harbour; they were armed with lances, and carried a kind of shield upon their backs. As the vessel advanced up the passage, they walked into the water up to their knees, and followed her, but as soon as she stopped, they retired into the woods.

“ They were scarce at anchor when two canoes put off from the islands to examine the ship, but they kept at a considerable distance, and contented themselves with going round it. Signs of amity and peace were made to the Indians in them, the white flag was waved, they were invited to approach, and to prevail upon them to do so, a piece of blue stuff was thrown towards them, tied upon a cork: they waited till the current carried it to the canoes, then eagerly seized it; and one of them twisted one end of it about his head, and let the rest hang down upon his shoulders. A bottle was also floated to them with a little brandy in it, but they were at a loss how to open it, and endeavoured to break off the neck; signs were then made to them to pull out the cork, which they comprehended very well, but in doing it let all the liquor run out. To all these demonstrations of friendship they made answer, by pointing out, that at the head of the harbour good water might be had, and provisions; and they often repeated the two words *Aoua, Alaw*.

Q₂

“ A third

SURVILLE. " A third canoe now arrived, in which were three men ; one of
1769. whom, after giving a loud cry, doubtless a cry of war, drew a handful of arrows from a quiver of bamboo, and fitting one into his bow, stood up on the front of the canoe in a posture to shoot ; but the white flag was displayed, and some bottles and pieces of stuff sent off to him also, and these presents seemed to pacify him.

" At sun-set all the canoes returned to the island on the right, which had been observed to be inhabited. The Indians passed the night round a great fire, and were so near, that they and the people in the ship could mutually hear each other talk. What appeared very singular was, that they imitated the boatswain's whistle exactly, and repeated, word for word, very distinctly, all they heard said on board. At one in the morning, two fresh canoes appeared by moonlight, and took several turns round the ship ; but nothing could persuade them to approach.

" On the 14th, at sun-rise, a rope was carried to the distance of 40 fathoms, in order to warp the vessel further up the harbour. As soon as the towing boats were at some small distance from the ship, several canoes came up to them, and, encouraged by the abundant marks of friendship they received, followed them when they returned to the vessel. Twelve of different sizes were counted, carrying from one man to twelve, but there was one much larger than any of the rest, containing 30 men, which was, doubtless, their admiral: it was 56 feet long, by 3 feet 8 inches broad. The Indians got into the boats, and were suffered to examine them very attentively, with-

without any molestation. The sailors were then working at the capstan, and, with the usual sounds, encouraging their labour, and keeping themselves in time together; all these the savages repeated very distinctly. An air was played upon the fife, accompanied with the drum; this music they heard with a kind of transport; and soon after, suddenly recovering from their ecstasy, turned their canoes round with marks of the utmost delight, and threw up the water with their paddles in a kind of regular cadence. At last one of the Indians, who had got into the boats, encouraged by the kind treatment he had met with, ventured to go on board, and the reception he met with induced him to stay there: he walked about upon deck, and examined every thing he saw with the utmost attention. His example was soon followed, and more than thirty Indians went on board one after another, with their arms: it was necessary to prevent more from following them, as there were many sick on board, and the number of savages would soon have exceeded that of the crew which was in health.

SURVILLE.

1769.

“ Though nothing was neglected to conciliate the friendship of these Indians, it was evident that they were not wholly free from apprehension; their manner, their looks, and the signs they made to each other, all bespoke distrust; and, on the least movement made in the vessel, they jumped into their canoes, or even into the sea. They had a wonderful adroitness in stealing whatever was within their reach, and it was not easy to persuade them to restore it. Some small presents were received from them, consisting of shells, and a kind of almond much resembling the *badame*. One of them

SURVILLE.

1769.

them seemed more particularly desirous to be useful than the rest; and Surville, in hopes of attaching and making a friend of him, distinguished him in the presents he made: this man gave him to understand, that he could point out a place at the head of the harbour, where he would find provisions, and might easily supply himself with water.

“ Towards noon, two armed boats were manned to visit the port, look for a watering-place, and procure every other information of the resources of the country. Surville entrusted the command to *M. Labé*, his first officer, whose prudence was equal to his valour, and appointed his own nephew, *M. de Surville*, under him, to command one of the boats; the seamen in both boats were armed with sabres: and the soldiers with them had musquets, pistols, and ammunition.

“ The savages appeared impatient that the boats should quit the ship; which they had hardly done, when they were followed by all the canoes. One of these, in which was the Indian who had offered his services to Surville, seemed to act as guide to the rest. On the stern of that vessel a man stood up, with bunches of flowers in his hands, which he held over his head, making various gestures in regular time. In the middle of the same canoe, a young man, standing up also, and leaning on a long spear, preserved the most grave deportment: tufts of flowers were stuck through his ears and nose, and his hair was powdered white with lime. As they passed along, they remarked great agitation among the Indians, who were coming

coming and going from one canoe to another, talking together with great earnestness. They did not, however, pay much attention to these movements, which seemed to arise from the natural astonishment of savages on the arrival of new men, and their apprehension of the designs they might have. All this time many canoes were coming off from some of the islands that formed the harbour, and joining those which had set out from the ship.

SURVILLE.

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“ The boats were conducted into a very close part of the harbour, at the entrance of a narrow channel, covered on each side with bushes; and the natives expressed, that they would find fresh water at the head of this channel. Having observed the place, and remarked that there were not more than two or three feet of water, on a muddy bottom, M. Labé did not think it prudent to entangle his boats in it, however the Indians might press him to do it; he therefore only put a corporal on shore with four soldiers, to discover and examine the spring which the savages promised. They were some time before they returned, and then reported, that having advanced a great way into the wood, they had found no water, but only marshes, in which they sank to their middles. M. Labé now began to suspect treachery on the part of the savages, who had wished to entangle his boats in the narrow channel, where they might easily have attacked them under cover of the bushes. He judged it best, however, to conceal his suspicions, and asked them to show him a place where he might find good water to drink: on this they seemed to dispute a little among themselves, and then made signs that he should follow them. The canoes and boats set out again and went towards the eastern part, to the side of a mountain washed by the sea,

SURVILLE. 1769. sea, and covered with wood; leaving to the left of them an assemblage of isles and islets, which excluded them from view of the vessel, whence they were now about three leagues distant; after having gone about six miles they landed. Several canoes had gone before the main party, and disembarked their people. A serjeant was now detached, with four soldiers, in search of water; and the savages who acted as guides conducted him to a place where some water flowed from a rock, but in so small a quantity that it was hardly sufficient to quench their thirst: there they were abandoned by their conductors; and it was with great difficulty that they got back to the boats, through crooked paths full of thorny bushes. Before the return of the detachment, the Islanders employed every method they could contrive, to prevail on M. Labé to run his boats ashore; sometimes inviting his people to get out and gather cocoa-nuts, which were abundant in this part; sometimes seizing the ropes, or the boats themselves, in order to draw them ashore and moor them to a tree: and the prudence of M. Labé, though it disconcerted their plan for a moment, could not prevent the treachery they had long meditated.

“ More than two hundred and fifty islanders, armed with lances of seven or eight feet long, swords or clubs of wood, arrows, and stones, and some with shields, were assembled on the beach and observing the motions of the boats. When the five men, who had formed the detachment, set their feet on board to re-embark, the savages rushed upon them, wounded a soldier with a blow of a club, the serjeant with a lance, and several others in different ways; M. Labé himself received two arrows in his thighs, and a stone on his

his leg. They therefore fired upon the traitors; the first discharge stupified them so, that they stood as if immoveable; it was the more severe, because, as they were all crouded together within one or two toises of the boats, every ball took place. Their stupefaction gave time for a second, which completely routed them; but it appeared, that the death of their chief contributed principally to hasten their flight. M. Labé having distinguished him apart from the other combatants, lifting his hands to heaven, striking his breast, and encouraging the people, by his voice, took aim at him and brought him to the ground. Their wounded they dragged away, or carried off; but they left thirty or forty dead upon the field of battle. The victors then went ashore, collected such of their arms as they found scattered about, and destroyed their canoes, only towing one away with them.

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“ Surville was shooting on one of the islands, at the entrance of the harbour, when the boats returned on board; and he himself returned, as soon as he was informed of what had happened. He perceived five or six savages on an islet, and hoped to seize them on shore; but when they were nearly taken, they had the address to launch their canoe into the water, and get into it. The boats were so well directed, that they intercepted these Indians; they fired upon them, and one was wounded, fell into the water, and got to shore; he was seen afterwards crawling on his hands and knees into the wood; the others also betook themselves to swimming, and it was impossible to catch one. Surville's intention was to seize one alive, to serve as a guide to a watering-place: he wished also to impress these people with a great idea of his force, to deter them from an

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attempt

SURVILLE. attempt against him, which, perhaps, they might have made with
1769. success, had they known to what a state of weakness the crew was reduced by sickness.

“ Soon after a canoe came out with two men, who examined the ship with great attention ; and a stratagem was used to make them come up to it, which succeeded. Two black sailors were sent in the canoe which had been seized ; they were fitted out like the natives of the country ; their bodies naked, their hair powdered white, and were armed like the savages, whose signs and manners they perfectly imitated. The Indian canoe was deceived by this artifice, and approached as near to the vessel as the other, in which were the blacks. Two boats were sent out to give chase ; but as they would have escaped by the quickness of their motion, it was necessary to fire in order to stop them. One of the Indians was killed, and in falling into the sea, upset the canoe. The second endeavoured to swim to the nearest island, was overtaken before he got to land, and dived several times, but at length was caught. It was a young man of about fourteen or fifteen years old : he defended himself with the greatest courage ; sometimes pretending to bite himself, and really biting those that held him. They tied him hand and foot, and carried him into the ship : there he affected to be dead for more than an hour ; but when he was set upright, and let himself fall on deck again, he took great care that his shoulder should come down before his head. At last, when he was tired of playing this game, he opened his eyes, and perceiving that the crew was eating, he asked for biscuit, eat some with a good appetite, and made many very expressive

expressive signs. Care was taken to bind and watch him, lest he should attempt to throw himself into the sea.

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“ The event of the day warned Surville to be upon his guard by night: and at one o'clock two canoes appeared, one of which carried but two men, the other eight or ten. They were fired at when they approached within shot of the ship; and from the cries which were heard from the larger, it was concluded, that some of the savages were wounded: they returned very hastily to land.

“ The next day, the 15th, it was proposed to conduct the young prisoner to the neighbouring isles, that he might discover a watering-place. He first pointed out the western island (*Isle St. Jean*, in the plan); but as soon as he was in the boat, he made signs to be carried to one of the eastern islands, which was afterwards named *Isle de l'Aiguade* (Watering-place Island). After landing they lengthened the rope by which he was held, and suffered him to take his own way. He chose a pretty long one; and they discovered that, in the course of it, he had contrived to cut his hand-cuffs nearly through with a sharp shell; after which he was more narrowly watched. As he made signs that they were not far from water, Surville continued to follow him, though apprehensive that some unforeseen accident might favour his escape. He led them, in fact, to a small spring; but one of the soldiers having discovered a better place for watering, they fixed on that. The young savage was re-conducted to the sea by a different way: and when he found they meant to put him on board again, he rolled himself on the beach, gave horrible shrieks, and, in his fury, even bit the sand. They hurried him on board

SURVILLE. 1769. left his cries should collect the Islanders from the different parts of the harbour, and they should be obliged to have recourse to the same means for repulsing the attack, that they had been forced to use the day before to punish treachery.

“ The precaution taken to fire upon all the canoes that appeared, even before they were within shot, kept the workmen unmolested; and after having formed a road to roll the barrels from the watering-place to the sea, they took in, at their leisure, as much water as was necessary for the ship's provision.

“ This isle afforded fire-wood also, which was much wanted; and they cut one sort which seemed fit for dying, for on being put into water it produced a red colour; and, some of the bark being boiled, the decoction gave a tolerably pleasing red to pieces of callico that were dipped in it. Some trees were also cut down for spars; and there were others that seemed fit for making blocks.

“ Other small resources were found in the island: several cabbage-palms were cut down for the sake of the cabbage, which was a great refreshment to the sailors; and on the reefs, rocks, and shelves, upon the coast, very good oysters, and other shell-fish, were collected; but the bottom was such that they could not draw the seine to supply the crew with fresh fish.

“ They were obliged to work six days in taking in wood and water; because the channel, which separates the island where they watered from the more northern ones, was dry at low water, so that they

they were forced to wait for the tide, to pass from the island to the SURVILLE,
ship. There are not more than seven or eight feet in this channel
in the highest tides. 1769.

“ It had been hoped, that exercise and air on shore would contribute to restore the crew to health, a great number of whom was attacked by the scurvy; but, unfortunately, the very first day they had a most heavy rain, which continued twenty-four hours; they could not dry their clothes, and the damp very considerably increased the malady. To this accident, and to the very frequent rain which fell during the whole of his continuance there, Surville attributed the loss of many men; three of whom died even before he had quitted the harbour: the serjeant also, who had been wounded with a lance, in the action of the 14th, died before they left it [Q]. The other wounded men recovered; but the wounds which M. Labé had received in both thighs, for a long time resisted all applications: ten months afterwards they still bled, from which it was suspected that the arrows had been poisoned.

Surville having found it impossible to procure any further advantages in this place, determined to put to sea, and fixed the 21st for his departure.

[Q] He had felt the most violent pains, which were succeeded by a burning fever and delirium; yet the surgeon could discover only a slight wound, to which he could not attribute the sufferings of his patient: he suspected the introduction of some extraneous body, but he could not ascertain it with the probe. When the man was dead he opened him, and found a piece of a spear, six inches long, which had penetrated with such force into one of the vertebræ, that he could not pull it out with pincers, and was obliged to cut the bone with a chisel and mallet, before he could extract it.

The

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The port in which they had anchored was named *Port Praslin*; and the great island, or archipelago, to which it belongs, received the name of *Lands of the Arfacides* [R]. Before they quitted the harbour they left inscriptions to ascertain the arrival of the *St. John the Baptist*; and cautions to the navigators who might touch there, to be on their guard against the treachery of the inhabitants.

Port Praslin would be one of the finest harbours in the world, if the nature of the bottom were not so much against it. Taking in

[R] *M. Pottier de l'Horme*, in his journal, gives the reason which directed Surville to choose this name: he says,

"The manner in which we were received at Port Praslin, made him wish to find a name which should be characteristic of these countries. He therefore gave the general name of *Isles of the Arfacides*, to all the lands we had seen, from the 7th of October to the time of our departure, in consequence of what is said in the *Encyclopedie*, at the word *assassin*, which is as follows:

"Some say, that the word *assassin* comes from the Levant, where it originated, from
 "a certain prince who lived between Antioch and Damascus, of the family of the
 "Arfacides, vulgarly called *Assassins*. He lived in a castle, where he brought up a
 "number of young people to pay a blind obedience to all his orders; and he employed
 "them to assassinate princes who were his enemies*. These assassins held eight or
 "twelve cities about Tyre, and chose a king, whom they called *The Old Man of the*
 "*Mountain*. In 1213 they assassinated *Louis of Bavaria*. They were Mahometans,
 "but tributary to the Knights Templars. The protectors of the *Assassins* were con-
 "demned by the Council of Lyons, in 1231, under Pope Innocent IV. They were
 "vanquished by the Tartars, who slew *The Old Man of the Mountain* in 1257; after
 "which they became extinct."

* "The Jew Benjamin, in his Itinerary, places these *Assassins* in Mount Libanus, and calls them in Hebrew, taken from the Arabic, *El Assassin*; whence it may be seen that the word does not come from *Arfacides*, but from the Arabic *Afis*, *insidiator*, a person who lies in ambush."

all the islands which are seen where the *St. John the Baptist* anchored, SURVILLE.
 it is nearly circular. The part visited by the boats may be six miles
 in length, and three in breadth, in the northern basin, two in the
 southern, and full one in the channel that unites the two. The en-
 trance, formed by two islands which are both extended by a reef,
 is not more than half a cable's length across; and no bottom is found
 till you come between the points. The first soundings gave fifty-
 five fathoms; there are only thirty after doubling the two points:
 and keeping on towards the middle of the port, till you have opened
 the two channels to the east, you come to twenty-two and twenty
 fathoms, on a bottom of fine white sand. The anchorage then va-
 ries from twelve to thirty and thirty-one fathoms, in the places
 where a ship can lie. The whole harbour is covered from the winds,
 and never can be violently agitated; but the bad quality of the bot-
 tom counterbalances all advantages: you continually meet with a
 moving sand, mingled with small corals, where there is no firm hold.
 The *St. John the Baptist* has drifted there when she had four an-
 chors out, with very moderate winds, and by the mere effect of the
 current; it appears, however, from the journals, that this might pro-
 ceed, in part, from the want of proper tackle*. All the islands,
 forming the two basins, are surrounded by a bank of sand and coral,

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* In the original, the remedy is explained in many naval terms, which some readers may, perhaps, be glad to see at full length.—“ Il est vrai que les Journeaux font observer que les touées n'étoient pas assez long pour la profondeur de l'eau: et peut-être qu'en changeant de Mouillage, en s'éloignant des reffifs de l'entrée dont la proximité ne permettoit pas de filer plus de cable, en alongeant une touée, en empennelant les ancres, on eût donné assez de tenue au Vaisseau pour résister l'action du courant, & conserver sa position.”

which

SURVILLE. which is hardly covered at low water ; and to the south-west of the entrance, is a mass of stones, which, at low tide, is not more than six feet under water. The channel, leading from the northern basin to the watering-place, is dry every tide, and the sea breaks over some plat-forms of coral at the bottom : they were never seen uncovered, but perhaps are dry at very low tides : in the same part are also many rocks under water.

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“ Many great channels communicate with this harbour, which seems formed entirely by islands, the extent of which they could not ascertain : high mountains were seen beyond it ; but whether they were other islands, or upon any main land, could not be determined.

“ The entrance of Port Praslin is in $7^{\circ} 25'$ south latitude ; and its longitude, east from Paris, was estimated at $152^{\circ} 46'$ [s].

“ The plan which accompanies the journals was not taken geometrically, but only drawn after the bearings marked by the compass, with the distances estimated by the eye : it cannot, therefore, be wholly depended upon ; but, such as it is, it may be useful to navigators who wish to refit in that harbour. The *Gros Morne* and the island *Premiere Vue*, are first descried in approaching from the west or north-west ; and the coast of this island runs E. N. E. and then south-east. After sailing along the latter part, many openings are

[s] This longitude and latitude are taken from a mean between those of the four journals ; but the corrected longitude should be $155^{\circ} 32'$ east from Paris.

disco-

discovered; that which appears wooded on both sides, and beyond which, at about three leagues distance, is seen the highest mountain on this part of the coast, is the entrance of *Port Praslin*. The whole coast is full of islands and islets, with reefs appearing before them; and above these islands a high country rises, which may be computed to be about three or four leagues off.

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“ The ferocity of the people who inhabit the islands of *Port Praslin*, did not allow Surville's people to penetrate into the interior of the country, they could only examine the parts near the sea. No cultivated land was perceived, either in the excursion of the boats to the end of the harbour, or on the island *de l'Aiguade*, every part of which was visited. The land all round the harbour, though under water at high tide, and marshy almost every where, is covered with tall forest trees of various kinds.

“ Among the trees which afford nourishment to man, are distinguished the cabbage-palm, which abounds there very much; the cocoa-nut tree, and many sorts of almonds. One of the latter bears a fruit as long as a date, and contains, within a moderately tender covering, an almond, which divides into two parts like an acorn: its colour is a deep pink, and it has the smell of a green artichoke; when divided, each part draws after it threads of an unctuous matter: it has no taste but a slight bitter; and the skin is about half a line thick. Another tree produces an almond, covered with a husk not unlike that of walnuts; and while this skin is tender, the savages eat them with lime; but when it grows riper, and has become hard and stringy, they pile them up together, that the outer coat may perish and drop

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off:

SURVILLE. 1769. off: the shell of this fruit is extremely hard, of an oblong shape, equally thick at both ends, and of an uneven surface. After breaking it off by strong blows of a hammer, an almond is obtained enveloped in a thin brown skin, which very easily comes off; the nut is composed of an assemblage of white irregular layers, which separate as soon as it is taken out of the skin: this almond, eaten with bread, is of a very delicate flavour, resembling that of the walnut, but is very oily. It seems to be one of the ordinary foods of the people of Port Praslin, who, to preserve the nuts, form them into bunches, or clusters, of about a foot long, and seven or eight inches thick, connecting and interlacing them together with great art. It was supposed to be their sea provision, because many of those clusters were found among the booty taken that unfortunate day, on which it was found necessary to punish their treachery. The tree, on which this almond grows, is of the largest size.

“ Among other trees the wild coffee was observed; and they thought they had met with ebony. The tacamahaca was also found, and several resinous and gummy trees: the first produces the balsam, which bears the same name; on another is gathered a very clear transparent gum, without either taste or smell; a third produces a resinous matter, of a blackish colour, and a balsamic odour; and its wood, on the least scratch of the bark, yields a similar smell. Mention has been made already of the tree which affords a red dye.

Surville

“ Surville and his companions were able to acquire but very superficial knowledge of the islands they visited, and of their inhabitants ; but the young islander, named *Lova Sarega* [T], whom they took prisoner,

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[T] *Lova*, in his language, is the name of a small fish. M. Monneron's journal gives some interesting particulars of this young savage.

“ He had scarce been two months on board, says he, before we perceived the extreme facility with which he learnt our language : but his progress was retarded by staying three months among the Spaniards in Peru ; yet in this time he acquired the power of making himself tolerably well understood in both languages.

“ What most excited his astonishment at *Lima* was, the height and magnitude of the houses : he could not persuade himself that they were solid ; and, in order to be convinced, endeavoured to shake the walls. But his surprise re-doubled daily, when he saw the works and occupations of the Europeans ; and he did not hesitate to acknowledge, that they were greatly superior to his countrymen. In the passage from Port Praslin to Peru, M. de Surville made him always eat at his table ; and he understood very well that this was a particular favour, because the treatment of the other blacks was very different. When they arrived at Callao in Lima, after the death of M. Surville, who was accidentally drowned, young *Lova* voluntarily retired from the officer's table, and undertook to wait as a servant.

“ He was much esteemed, and indeed deserved it by his good qualities ; his expressions of gratitude always proved that he knew the value of favours ; and he never abused the indulgence which was given him.

“ The only fault he displays is the transport of rage or despair, to which he gives way too easily, and that may be attributed to his extreme sensibility ; but this emotion acts against himself only, and is past in an instant : it is the anger of a child. His understanding is acute ; and he learns, with ease and pleasure, whatever he is desired to undertake : he would certainly read very soon, if care was taken to instruct him.

SURVILLE. 1769. prifoner, and carried away with them, and kept for two years, learnt French with extreme facility; and from their conversations with him, about the interior parts of the country, they gained information, which, from his youth, and the education of nature, was, probably, true; excepting fuch fables as he had been taught in his infancy, for fables are the produce of all countries.

“ The productions that Lova defcribed, of which only a few had been actually feen, are the banana, the fugar-cane, the yam, the cocoa, the anife, and the almond, which the inhabitants efteem fo much. He endeavoured alfo to defcribe a fpecies of fruit which he could not find in Peru; but it was not poffible to gain any fatisfactory idea of it from his account. They eat turtles and their eggs, which are very abundant; and fifh, which is alfo very plentiful on that coaft: they alfo make great ufe of a plant, called by them *Binaö*, which ferves for bread.

“ The different kinds of fpices ufed in Europe, were fhown to *Lova*; he knew nothing of that kind in his own country, but a very large tree, the bark of which has a tafte, much refembling that of cinnamon, to which, as was very natural, he preferred it: the inhabitants of Port Praflin ufe it as they do the betel, areca, and lime.

“ His honefty has at all times deferved commendation: he is rather fond of finery, but eafily gives it up; he well knows the ufe and value of money, but is not greatly attached to it. His moft lively defires appear to be thofe of gratifying his appetites. It is certain that his difpofition is remarkably good, and that he is free from many faults that often are not prevented by a more careful education.”

“ According to the journal of *M. Pottier de l'Horme*, the woods are peopled with prodigious numbers of cockatoos, lories, ring-doves, and a kind of blackbird, larger than those of Europe. They find also, in the marshes, curlews, stints, a sort of snipe, and another bird about the size of our duck, with an ash-coloured back, the breast, belly, and under part of the wings, a fine white: there are also salamanders, some of which were taken, and measured above five feet from the head to the end of the tail. No quadruped was seen on the islands which were visited; but *Lova Sarega* affirmed, that the wild boar is very common in the woods of the main land. The islanders of *Port Praslin* were not unacquainted with fowls, for when they saw them in the ship, they immediately imitated their notes exactly; but they looked with astonishment at the ducks, appeared never to have seen them, and asked for some. They also very exactly imitated the cry of the kid and the grunting of a hog, and pointed to show that some might be found in the islands up the harbour. Among the insects, M. de l'Horme particularly remarked a spider, whose head and foreparts are rather small, black, and sprinkled with white spots; its hinder part terminated by a fan-shaped tail, of a pleasing red, sprinkled with black spots; the body is long, cylindrical, and rounded at the end; the legs very long, and marked with black and white, nearly at equal intervals. He observed also ants of a prodigious size; and flies with black and grey legs, the extremities of the wings grey, and the body of a greyish black, like the middle sized brizes of Europe, which sting so cruelly in wet seasons. In the woods he met with a small snake, the size of a little finger, and about two feet and a half long; the back of a straw colour, regularly disposed in small squares, among which were some of a very

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SURVILLE. very clear grey, and the belly in cartilaginous scales of very pale yellow: this snake twice darted at a soldier, who at length killed it with his bayonet. He saw also a toad, which he thought singular enough to deserve a particular description: its back, along the whole length of the body, is sharp and sloped on each side, like a pent-house; at a small distance from the shoulders, the head, or snout, takes the form of a lance, equally sloped off like the back; and near the angle are placed the eyes, on a kind of scale, or cartilage; the feet have nothing in them uncommon, and the animal moves by bounds like the toads of Europe.

“ We will conclude this account of Port Praslin, by the description of its inhabitants; and in treating of their natural qualities, habits, arms, customs, and manners, shall often blend, what the officers of the *St. John the Baptist* saw and judged for themselves, with what they afterwards learnt in their conversations with *Lova Sarega*.

“ The inhabitants of *Port Praslin* are of very ordinary stature, but they are strong and muscular. They do not seem to spring from the same origin, some being perfectly black, others only copper-coloured: the former have woolly hair, very soft to the touch; their forehead is small, their eyes rather sunk, the lower part of the face sharp, and furnished with some little beard, and their whole figure has an expression of ferocity. They differ from the negroes in having neither the nose so flat, nor the lips so thick. Some of those who are copper-coloured have lank hair: but they do not all wear their hair in the same form; in general they cut it round the head to
the

the ears; some keep it merely on the top of the head like a scull-
cap, shave off the rest with a sharp stone, and only leave at bottom
a small circle of about an inch, which they suffer to grow only to
the length of that at top: the greater part keep a little tuft upon
the top of the head, and some divide it into several little queues, by means
of a gum, which make the hair adhere together. There are few of
them who do not powder their hair and their eye-brows with lime,
which gives them the appearance of being dyed yellow when the
powder has not been lately applied. Many also paint a white line
over the eye-brows from one temple to the other. The women, of
whom only one or two were seen in the canoes which passed in sight
of the ships, trace these lines along their cheeks also, and make
others on their bosoms from one shoulder to the other.

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“ Both men and women are absolutely naked, with merely a scanty scrap of matting tied at the waist. The men tattaow their faces, arms, and other parts of the body; and some of the designs thus executed are not unpleasing. The lobes of the ears are pierced by a hole, which in general is of most extraordinary size. The ornaments they wear are of different kinds; some have great rings of shell, or of a very white substance, that appears to be bone; others leaves of different trees, or flowers. The partition of the nose is also pierced; and the ornaments of different kinds, which they put through it, so lengthen the cartilage, that in some it descends to the edge of the upper lip: what they wear there is sometimes a wooden peg, and sometimes such rings as those in their ears. But the ornament which seems universal is the bracelet; the greater part wear it on the arm above the elbow, and it seems to be about an
inch

SURVILLE. inch broad, and half an inch thick; it is made, as far as can be judged, of a shell which is hard, opaque, heavy, and superior in whiteness to the ivory of Senegal, and the marble of Carrara; and under it hangs a circle of shell, artfully worked. They who have not this bracelet wear another sort on the wrist; this goes several times round, and is composed of small bones of fish, and other animals, strung upon a thread. Some of them also hang upon their neck a kind of comb, made of a white stone, upon which, according to *Lova Sarega*, they put a high value: and others were observed, who had a white shell [u], about the size of a pullet's egg, fixed upon the forehead by threads which went round the head. But there were other ornaments that particularly attracted the attention of our voyagers, which were those strings of beads worn by these savages as necklaces, as girdles, or hanging on their breasts, and composed of small bones like teeth: the surgeon of the ship affirmed, that many of them were actually human teeth, and that some of the strings were entirely made of them. It was thought fair to conclude from thence, that these people are cannibals: the answers on this subject, obtained from young *Lova*, though he would never directly own it, and the fear he showed for the first months, lest he should be killed and eaten, appear to confirm this suspicion: and the known ferocity of these islanders might be sufficient perhaps to change it to certainty [x].

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[u] The inhabitants of Bougainville's Choiseul Island, which is part of the Isles of Arfacides, wear the same ornament on their foreheads, as well as bracelets of a white matter like bone. See the account of his Voyage.

[x] The necklaces of human teeth are not sufficient proof that they are cannibals; for we know that the New Zealanders wear the teeth of their dead friends as collars
and

“ The arms of these people are the bow and arrows, the spear, SURVILLE.
 and a kind of clubs. The bow is made of a black elastic wood, 1769.
 moderately heavy, the string is composed of the filaments of the
 palmetto. The body of the arrow, which is above three feet long,
 by 14 lines in circumference, is a reed; the extremity is composed
 of three or four pieces joined together by a very hard mastic, and
 armed with a bone cut to a very sharp point: the bone commonly
 used for this purpose is one that is found in the tail of the *sea devil*.
 If these arrows are not poisoned, they are not the less dangerous;
 for some part of them must always stay behind in the wound.
 Their lances, some of which are about ten feet long, and two inches
 and a half round, others eight feet by one inch ten lines, are made of
 palmetto-wood painted black, and terminated in a square at the end,
 with which they strike: they are usually armed with a bone about
 six inches long; and the teeth cut in it are so disposed, that it can-
 not possibly be drawn out without tearing the flesh. The clubs are
 made of a very heavy red wood; they vary in length, but are usually
 about 30 inches; and then they carry them fastened to a kind of
 fash, and hanging on the left side, as we wear a *couteau de chasse*:
 the shape of these clubs is a flat lozenge; and it is astonishing with
 what precision they fit and inlay a fish-bone on the two sur-
 faces, which serves to mark the middle. (These arms are repre-
 sented in Plate VII.) To defend themselves from arrows, they

and pendants in their ears, as a mark of attachment. But unfortunately there is a
 proof to which we must submit, namely, that when M. Bougainville was attacked by
 these people in Choiseul Island, he found among the articles in a canoe that he had
 seized, *a man's jaw half broiled*. See the account above.

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have

SURVILLE. have shields made of split rattan, woven together like our wicker
 1769. work: one side has two handles or holders, through which the arm
 passes: when they are in their boats, they cover their backs or
 heads with them, and use them as umbrellas. Some of these
 bucklers are ornamented at the four corners with tufts or tassels of
 red and yellow straw, made into a kind of ribbon [Y].

“ In the canoes that were seized, many utensils and implements
 were found which these people employ in constructing their vessels;
 a hammer, made of a black conical stone, strongly fixed with twisted
 rattan upon a handle of wood; and an adze, made of a piece of very
 hard shell, seemingly of the same kind as that used in bracelets:
 this shell is cut in the shape of a gun-flint, and fixed in a very solid
 manner, by means of rattan, to a piece of wood naturally bent into
 the shape of a pick-axe. (The form of these two instruments may
 be seen in Plate VII.) Mother-of-pearl, which they find abund-
 antly on the shore, serves them for knives, and the sharp edge of a
 flint supplies the place of a razor to shave their hair and beards.
 They make fishing-nets with the filaments of the bark of the pal-
 metto; and those that they form for bags are worked with great art.
 In their canoes was found a kind of grease, of a balsamic odour, which
 was supposed at first to be an ointment, but *Lova Sarega*, having
 seen a candle lighted, gave them to understand that it was used for
 the same purpose; it was therefore tried, and the light it gave was
 clearer than that of our wax candles, and attended with an agree-
 able smell.

[Y] We have seen already that the savages of Choiseul Island have the same arms
 and buckler.

“ The

“ The canoes of these islanders are constructed with great good sense, and finished with much skill: they are not formed of a trunk of a tree, made hollow by stone instruments or fire, as those of many savage nations are, but are made of pieces put together. In the small canoes the planks are not more than a third of an inch in thickness, and in working them they form on the inside a kind of loops, which at intervals are tied strongly with rattan to ribs of wood, bent in the shape of the boat, and serving as its frame; nor are these planks held together by any other means; the joints are stopped with a black mastic, tolerably hard, which renders these frail vessels impenetrable to the water. The prow and stern are raised very high, apparently for the purpose of defending the warriors in them from arrows, by presenting either end to the enemy: and in general they are ornamented with pieces of mother-of-pearl, forming different designs, and applied with mastic. They are drawn ashore, or launched out, in an instant: and the quickness of their motion is proportioned to their lightness: one was seen, which was 56 feet long by three feet and a half broad. Their oars or paddles are flat and large, the ends shaped like a myrtle leaf, the handle formed like that of a crutch, and the whole perfectly well worked; but they have neither sails nor outriggers [z].

SURVILLE.

1769.

“ The impossibility of having any communication with people who, from the first day of his arrival on their coast, had manifested a perfidious character and ferocious manners, prevented Surville from

[z] The canoes of Bougainville's Choiseul Island seem to be constructed in the same manner, and to differ only in the ornaments.

SURVILLE. gaining that knowledge which otherwise he might have obtained, in
1769. the time he staid at Port Praslin, on the subject of their govern-
ment, customs, and manner of living. This defect we will in part
supply from the answers of *Lova Sarega*, to the questions that were
put to him, and from the accounts he has voluntarily given of his
own country.

“ The inhabitants of the islands of Port Praslin, and the neigh-
bouring lands, are in a continual state of war : the prisoners become
the slaves of the victors.

“ The authority of the king or chief of the country is unbounded ;
all his subjects are obliged to carry to him the produce of their
fishing, the fruits they have gathered, the works of their hands,
and the booty taken from their enemies : the king retains what he
wants, and restores the rest to the proprietors ; and should a man
carry any effects to his house, without having thus offered them in
homage to his sovereign, he would soon suffer a severe punishment
for his omission. If unfortunately any subject treads upon the
king's shadow, the offence is punished instantly with death ; but,
added *Lova*, if it happen to be a nobleman of the country, who
has possessions of great value, he may obtain pardon by the sacrifice
of his riches.

“ Concerning the religion of his country, the young savage could
give no satisfactory intelligence : he only said it is believed that
after death men go to heaven, but that they return from time to
time to converse with their old friends. Endeavours were made to
persuade

persuade him, that it is absurd to believe in these apparitions of the dead; but he insisted upon it that they do appear, and always in the night; they mark out the places where fish may be caught in greatest abundance, and they never fail to announce good and bad news. If further opposition was made to his opinion, and arguments used to convince him, he concluded all by saying, that no one could know better than himself what happened in his country. That *Lova* should have invented this fable is very improbable; he, doubtless, repeated what he had heard, and the only conclusion is, that the people are very superstitious. A ceremony, of which those whom the savages attacked at the head of the harbour were witnesses, further confirms this conjecture: they saw that before the attack, he who appeared to be the chief of the party, had for some time held his arms lifted up, and his eyes fixed towards heaven; and after this kind of invocation, made a very lively harangue to his companions. There was also distinguished, in the largest of the canoes, a personage exactly in the middle of it, standing upright, unarmed, with his ears and nose adorned with flowers, who, by his grimaces and contortions, seemed to be invoking the aid of some supernatural power: on the stern of the same canoe was a grotesque and horrid figure, which was supposed to be an idol.

“ Physicians are greatly venerated by these people, and none but men advanced in years are allowed to exercise that profession. *Lova* preserved a high opinion of the physicians of his own country, and much preferred them to ours, who, according to him, know nothing but how to prolong a disorder.

“ Females

SURVILLE.

1769.

“ Females are contracted in marriage in their earliest infancy, and from that time inhabit the paternal houses of their husbands, where they remain till they attain the age of puberty. A plurality of wives is permitted.

“ Among these people, as well as in civilized nations, riches obtain distinctions, beyond the term in which they can be personally enjoyed; on this subject *Lova Sarega* reports a custom which will be thought singular. When a rich man is dead, an open scaffold is raised, on which the body is laid, and under it is cut a trench of equal length; it remains there till the flesh putrifies in the sun, and parts of it fall off into the trench; after which the head and bones are carried away to a place of common sepulture, the trench is covered up, and over it is raised a small building, which we may call a mausoleum. If it was the body of a child, they only plant the place with flowers.

“ It appears that these people have some knowledge of commerce: notwithstanding the fragility of their vessels, they take voyages of 10 or 12 days, and guide themselves by the motion of the stars, some of which they have learnt to distinguish from the rest. That they traffic with some white people, or at least much less black than themselves, is concluded from an adventure which *Lova Sarega* related, declaring that he was an eye witness of it. He saw a boat come to land, not different in form from those of his own country, in which were 15 or 16 black men, three black women, and a white woman. The black women did nothing but chatter, the white woman wept incessantly, lamenting a white man, who had gone into the sea to catch

catch a turtle, and had been devoured by the fishes. She was delivered of two white children, one of which died, whereupon she was inconsolable, and strangled herself with a little lace she wore about her neck, and had used (as the Peruvians do their quipos) to mark the days of her absence from her country by knots made upon it: as *Lova* also did when he was carried from his own island. He added, that this white woman had very large pendants in her ears, of a golden colour; that her nose was pierced; and that she was naked, excepting a small piece of stuff, which reached from her waist to her knees. The boat in which she arrived, had brought also hogs, and a great quantity of cocoa-nuts.

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“ *Lova* confirmed his recital, by affirming positively, that his father often made voyages which lasted 10 or 12 days, to a nation much less black than his own; that he there changed black men for white, and brought back also fine cloths, covered with designs, which served his countrymen to tie round their bodies. To judge by the duration of the voyages, and the frailty of the vessels which make them, this country inhabited by whites can be at no great distance from Port Praslin, and should belong to the same Archipelago: perhaps it is one of the islands of the eastern part, which Surville afterwards discovered.

“ The inhabitants of these countries, happily for themselves, are ignorant of all metals; iron only deserves their regret: the use of it is supplied, as has been said, by hard stones, some slate-coloured, others green, of which they make hatchets, adzes, and hammers, by the bones of fish, with which they arm their arrows and spears; and
by

SURVILLE. by a sort of flint, which serves for knife and razor, and also gives
1769. them fire.

“ No building better than fishing-huts was discovered on these islands ; but *Lova* asserts, that in the inland parts there are considerable villages.”

We do not any where find, in the journals now before us, either the general name given to these countries by the natives, or those of particular islands : and we both wonder and regret that the question was never put to *Lova Sarega*.

It was on the 21st of October that the St. John the Baptist quitted Port Praslin, after an abode of nine days : all which time there had been constant winds from the N. E. to the E. and much rain. The scurvy made great ravages among the crew, great part of which was unfit for service : nor was there any hope of a period to this evil, till they should arrive at some land where they might lodge their sick in security, and procure them such refreshments as were absolutely necessary to their recovery.

The 22^d, in the morning, they were out of sight of land ; they had winds from the southern quarter, which allowed them to get up a little to the east. At noon they were, by their reckoning, 40 minutes east of the meridian of Port Praslin, and in 7° 14' S. latitude, by observation. The land was not in sight all this day, and it was supposed that if it was extended, it must proceed to the S. E. or was interrupted by some great channel or gulf. Nevertheless, it seemed
that

that they could not be at any great distance from it; for in the morning of the 23d, there floated by the ship a *catimaron*, or small boat, which the yawl fetched on board; it was made with stems of the banana still green, and in the middle of it was a kind of niche formed in wood. It was not, however, till four in the afternoon the same day that they saw land again; it was discovered at a great distance, from the S. S. E. to the S. S. W. point of the compass. (Variation observed, $9^{\circ} 20'$ N. E.) The winds had got about to the east; they endeavoured to beat up, and having stood on the land-tack all night, they founded every half hour, but found no bottom with a line of 55 fathoms.

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On the 24th, in the morning, nothing but high mountains was perceived from the S. to the S. W. $\frac{1}{4}$ S. a part of the coast which was full in view in the W. W. $\frac{1}{4}$ S. W. appeared to be an island; the latitude by observation at noon was $7^{\circ} 45'$, and the difference of longitude E. from Port Praslin was, by reckoning, $1^{\circ} 4'$. All day they had winds from the E. and S. $\frac{1}{4}$ S. E. in squalls.

On the 25th, the weather was thick, and the points of the land could not be discerned; only the high mountains were in sight. In the evening the weather had cleared, and land was distinguished from the W. $\frac{1}{4}$ S. W. 1° W. to S. E. $\frac{1}{4}$ S. 2° S. In the night the winds blew from the westward, varying from the S. S. W. to the N. W. of which they took advantage to make towards the east.

On the 26th no land was seen, and they hoped they had reached the most easterly point of the Archipelago along which they had

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failed:

SURVILLE. failed: but towards noon a small island was discovered, at the distance of five or six leagues, in the S. E. $\frac{1}{4}$ S. 2° E. (observed variation, $8^{\circ} 34'$ N. E.) and to the south of this island, they perceived a high land very distant. The circumstances of its discovery gave this island the name of *Inattendue* (unexpected). Its western part has some small eminences; the rest is a low land, and it is entirely covered with wood: as it appeared in that situation, it seemed to extend about two or three leagues from east to west.

1769.

According to an observation compared with the bearing taken, the middle of the island is situated in $7^{\circ} 54'$, or $56'$ S. latitude, and it was, by reckoning, $2^{\circ} 4'$ E. of Port Praslin. It was judged to be eight or nine leagues distant from the high land, which appeared equally to be an island, and at the distance of 14 or 15 leagues from the ship.

In the course of the 25th and 26th, with winds from the southern quarter a great part of the day, the currents had carried them about two leagues to the north.

The 27th, at six in the morning, another great island was discovered full in sight, the most eastern part of which stood to the S. $\frac{1}{4}$ S. E. and the most western, S. W. (observed variation, $8^{\circ} 34'$ N. E.) At noon the first point bore S. $\frac{1}{4}$ S. W. 5° W. The distance, at this latter period, was estimated at 16 or 18 leagues. M. Labé, and M. Pottier de l'Horme, both observe, *that this island is the highest of those they have seen.*

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The lat. from observation at noon, was $8^{\circ} 20' S.$ and the difference of longitude from Port Praslin $30^{\circ} 2' E.$ by reckoning. The winds, from the 26th to the 27th, had blown constantly from the northern quarter, varying a little towards the N. E. and the vessel had been carried by the currents four leagues and two-thirds to the south.

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According to the latitudes observed, and the course kept, they judged that the coast continued to extend to the S. E. At sun-set, the point which had borne at noon S. $\frac{1}{4}$ S. W. $5^{\circ} W.$ stood at S. W. $\frac{1}{4}$ W. $1^{\circ} S.$ and the western point of the same land, which was taken for an island, lost itself in the fog; it was only seen as far as the W. $\frac{1}{4}$ S. W. The most eastern lands were lost in the clouds; they were perceived only as far as the south.

They made but little way on the 27th and 28th; the weather was thick, and attended with rain and calm. At noon, on the 28th, they computed that they were in $8^{\circ} 30' S.$ latitude, and $3^{\circ} 25' E.$ of Port Praslin. At three in the afternoon, lands were again seen, of an extraordinary height, from the S. S. W. to the W. and their distance appeared to be 10 leagues. At five, the most western extremity of the land bore west, full in view, and the most eastern, full east, at the distance of 10 leagues: an opening between the lands bore W. $\frac{1}{4}$ S. W. $3^{\circ} W.$ and a second opening, more to the south, bore S. W. $\frac{1}{4}$ W. (variation $8^{\circ} \frac{1}{4} N. E.$)

The 29th, at sun-rise, the first opening appeared in the W. $5^{\circ} S.$ The lands descried most to the north, lost themselves gradually in the clouds. They were seen only in the W. $\frac{1}{4}$ N. W. $3^{\circ} N.$ and

SURVILLE. the most southern, in the S. W. $\frac{1}{4}$ W. as far as the eye could reach.

1769.

At noon the lands, which lay the furthest to the S. E. bore S. S. E. 2 or 3° S. at 12 or 15 leagues distance: a large opening was then discovered in the S. $\frac{1}{4}$ S. W. 2° S. at eight or nine leagues; a second S. S. W. 3° S. at seven leagues; a third W. 3° S. That which in the morning had borne W. 5° S. stood at noon in the W. $\frac{1}{4}$ N. W. at seven leagues [A]; and the lands remotest to the north-west were N. W. $\frac{1}{4}$ W. 5° W. in full view. (Variation 8° $\frac{1}{4}$ N. E.) Observed latitude at the same time, 8° 57', and computed longitude, 3° 29' E. of Port Praslin.

They perceived that in the course of the 28th and 29th, the currents had carried them about three leagues to the south; and the prevailing winds had been from the northern quarter, sometimes east of it, and sometimes west.

On the 30th, at six in the morning, an island was discovered at a distance from the coast; it lay S. E. $\frac{1}{4}$ S. 3° S. and was distant eight leagues. The most southern lands lay S. S. W. 3° S. distant nine or ten leagues: and those furthest to the north, having the

[A] It were to be wished that all the openings had been marked upon Surville's chart; but there is not one of them set down: the views which Plates V. and VI. present, may, in some degree, supply the defects of the chart, although they do not always agree with the journal. The view of the 29th, at noon, appears very defective, if compared with the chart, which should perhaps have been corrected from the view, as that is most to be confided in.

appearance of an island, W. $\frac{1}{4}$ N. W. 3° N. at 14 or 15 leagues. SURVILLE.
(Estimated variation, $8^{\circ} \frac{1}{4}$ N. E.) At the same time was distinguished an opening between two islands, and others still larger, which were judged to be either fine harbours, or straits affording a communication with another sea. When the bearing was taken, the coast appeared to end in the S. S. E. and S. $\frac{1}{4}$ S. E. [B]. 1769.

At noon the observed latitude was $9^{\circ} 20'$, and the computed difference of longitude east of Port Praslin $4^{\circ} 9'$.

During the last 24 hours, they had been often becalmed, and the little wind that had blown varied in general from the north to the north-west. By comparing the observed latitude with that deduced from their reckoning, it was judged that in this interval the currents had carried the vessel to the south five or six leagues, in a reduced course of about 12 leagues, directed to the S. E. 5° E.

The whole day was a calm; and during the night, and in the morning of the 31st, they had only very light and variable winds from the northward. It did not appear that they had in this time felt any effect from the currents.

At noon, on the 31st, the island discovered the day before bore S. 5° E. distant nine leagues. The most southerly lands lay

[B] If we compare what is said in the Journal with the tenth view on Plate VI. it will appear that the track marked upon Chart III. is carried at too great a distance from the coast.

S. W.

SURVILLE. S. W. 3° S. at 15 leagues, and the most northerly, at W. $\frac{1}{4}$ N. W. 2° W. at 18 leagues. (Variation $8^{\circ} \frac{1}{4}$ N. E.) The observed latitude was $9^{\circ} 23'$, and they had advanced to the east 11 minutes.

1769.

A complete dead calm continued the whole day, and the night ensuing.

On November the 1st they had, in the morning, only very light airs, varying from the north by the east, and round to the S. S. E. The position of the vessel, with respect to the detached island discovered on the 30th of October, had changed very little since the preceding evening. At sun-rise the middle of this island bore S. E. $\frac{1}{4}$ S. 4° S. distant seven leagues. The most southern part of the other lands S. S. W. 1° S. at eight leagues. Many openings were perceived in the coast at different bearings. At noon they found themselves, by observation, in $9^{\circ} 25'$ of latitude, and $4^{\circ} 27'$ east of Port Praslin.

The part of the coast now in sight appeared to be more inhabited than the neighbourhood of that port: they could distinguish cleared grounds and plantations; and the columns of smoke which arose from the interior parts, announced that the population was not confined to the shore. Three canoes were perceived, which came out of one of the openings in the coast, and rowed towards the ship; they carried two, four, and eight men: in their construction they resembled those of Port Praslin, but were more ornamented. The savages who were in them were of the same kind as the first that had been seen, had the same arms, and the same suspicious temper.

temper. The little presents thrown to them, to which they seemed to pay no great regard, any more than to the signs of peace and amity, which it was endeavoured to make them comprehend, never could prevail upon them to go on board. In their turn they made signs, seemingly of invitation to visit them on shore, and pointed out where provisions might be obtained. After having gone round the vessel, and examined it for half an hour, they went back to land.

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There was some little wind this day, but as it blew from the S. E. and varied to the E. S. E. it was directly contrary to the track they meant to pursue to reach the end of these lands, where, from the known character of the inhabitants, they had no hope of procuring any refreshments.

At sun-rise, on the 2d, they were not more than five leagues distant from that island, in sight of which the ship had now been detained three days by calms and contrary winds. This circumstance induced them to name it *Ile des Contrariétés* (Isle of Difficulties, or Obstacles). From the latitude observed at noon, the calculation of the ship's course, and the bearings, it was concluded that the middle of the island is situated in $9^{\circ} 46'$ S. latitude, and $4^{\circ} 20'$ to the E. of Port Praslin. They were then not more than two leagues from the middle of the western coast, and in that position the lands discovered the furthest to the south, which had the appearance of islands, lay to the S. W. $\frac{1}{4}$ S. in full view. (Variation $8^{\circ} \frac{1}{4}$ N. E.)

The

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The appearance of the *île des Contrariétés* is very agreeable, and presents a delicious landscape. It seemed well cultivated; and the great number of canoes which they saw put to sea, and the fires they perceived at night on every part of the island, made them judge the population to be great. It may be about four or five leagues long by three broad, in the middle, but the southern part is narrower, and flatter than the northern: in clear weather it must be seen at the distance of 12 or 13 leagues.

The vessel was surrounded with canoes the whole day: they counted as many as 20 at a time, carrying altogether about 150 men. The savages who were in them did not differ perceptibly from those who had come from the main land the evening before. All signs of peace and friendship that could be imagined, were employed to persuade them to go on board; for a long time they refused, and it was not till many little presents had been thrown to them, which they seized with avidity, that one, who seemed to be their chief, took courage to enter the ship alone. His first proceeding was to seize some clothes belonging to a sailor, which he was with difficulty prevailed upon to restore; he then flew to the white flag which was hoisted at the stern, took it down, and wanted to keep it, but was made to understand, in a gentle manner, that he must give it up. He then clambered up the shrouds, with the agility and address of the expertest sailor, to the mizen-top, whence he examined all parts of the vessel that he could discover, with great attention. Coming down again to the quarter-deck, he began to play a thousand gambols, then addressing himself to his companions, who remained

remained in the canoes, he spoke with vehemence to them, doubtless to invite them on board; and to persuade them further, made signs and gestures, which appeared very extraordinary [c]. Surville invited him into the council chamber, and he followed without any suspicion: whatever he saw he asked for; at length they satisfied him with a Flemish knife, and two or three ells of blue linen. He soon discovered that Surville was the chief, and gave him to understand that he was of the same rank.

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Emboldened by his example, and still more by his invitations, a dozen of his companions got on board. They were not permitted to take their arms with them; but the canoes were full of spears, barbed arrows, and bows. These islanders are entirely naked [d], and seem to belong to different races. The chief was of a swarthy colour, like the Indians; the rest were black: he, and only one more had long lank hair; and he seemed to be proud of it, for he pointed it out to Surville. Some of them, whose heads were disproportionately large, and who much resembled African blacks, had their hair black and woolly; on others they were red at the end, perhaps by the action of the sun, or the juice of some herb: one only was pow-

[c] We cannot, with propriety, express the particulars in a modern language. *Membrum virile sursum deorsumque agitans, socios, hoc signo admodum insolito, convocare videbatur.*

[d] A particular custom was in use among them, which seems peculiar, or has not at least been remarked elsewhere by any voyager. *Aromatico incognitæ arboris folio partem membri virilis extremam involvunt; ita ut, præputio longissimo supra adducto, dimidia folii pars prominens canalem sive tubulum viridem e virgâ pendentem repræsentet.*

SURVILLE. 1769. dered with lime like the inhabitants of Port Praslin; he was also the only one that wore a peg through the partition of the nose, as they do: some of them had a piece of mother-of-pearl hung there, either formed into a triangle, with the three sides bent like festoons; or cut round, with many concentric circles, painted in black on one of the faces: the others did not seem to have their noses pierced; but all have great apertures in the ears, in which they carry, as well as on their necks, arms, and other parts of their bodies, bunches of aromatic leaves of a very pleasing scent: lastly, they all have bracelets above the elbow, made of a shell, either of a crab, or some other crustaceous fish. The Chief had peculiar and distinctive ornaments, consisting of small stones, or beads, threaded, and turned as bracelets round his arm, and a girdle round his body: on his head waved a plume of two feathers, which he would not ever suffer to be touched. These islanders are of a very ordinary stature, but have open breasts, falling shoulders, and are, in other respects, well proportioned. Young *Lova Sarega* asked them many questions; but he could neither make himself understood, nor understand their language. They proposed, by signs, to take him with them, but he constantly refused, and in such a manner as proved he was afraid of them. Their canoes, which, like those of Port Praslin, are without sails or out-rigger, are nearly of the same construction, but worked more skilfully: that of the chief, particularly, was a master-piece for the finishing of the work, and the design, and polish of the inlaying, which was composed of various coloured woods, and pieces of mother-of-pearl adjusted and incrustated with much art. On the forepart waved a flag or pendant, composed of various tufts of straw, or
little

little rushes stained red; the stern was adorned with many sculptures, where, among the figures of various animals, some of dogs were distinguished, whence, it is presumed, that this animal is common on those Islands.

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The twelve islanders who went into the ship did not remain there long; many times they had earnest conversations with their companions who were left in the canoes; but it could not be discovered whether they were inviting them to join them, or carrying on some plot, and preparing an attack. Those in the vessel not being armed there was no fear of them; it was only necessary to watch them, that they might not steal whatever they saw, that could be carried off: one of them having stolen a vessel out of the store-room, by putting his arm in at the port-hole, threw himself into the sea, and swam off with his booty; the appearance of discontent that this occasioned, alarmed the rest, and they all re-embarked, making great haste to get back to their island.

The chief of these islanders had expressed great affection for Surville, caressed him extremely, and invited and pressed him, by the most expressive signs, to visit him on shore, giving him to understand, that he would find there abundance of provisions of every kind. These demonstrations of amity and assurances did not inspire Surville with much confidence; the scene at Port Praslin was too recent in his memory, to let him at all relax his precautions against treachery: but the island, now within a very small distance, presented so enlivening an appearance, and the sick, whose number daily increased in an alarming proportion, were so pressingly in want of re-

SURVILLE. freshments, that he determined to attempt a descent. The yawl was
1769. put out to take the soundings, and look for an anchorage; M. Labé embarked in it with a small detachment of soldiers, well armed; and the ship bore up to cover the boat and support it with her cannon, if attacked.

The boat was hardly gone two musquet-shots, before the canoes assembled, in a cluster, together, as if to hold a council; and four were sent off to meet the boat, which surrounded it. The savages were already fitting their arrows to their bows; but M. Labé, who had learned at Port Praslin, to his cost, how closely the effect follows the menace, among these people, thought himself bound to prevent their fatal design, and ordered his people to fire. The ship, whence all these movements had been strictly watched, directed two cannon-balls against the most distant canoes, on which they all fled to land, and the yawl returned on board.

The savages quickly recovered from the first alarm which the thunder of European artillery had occasioned; and, at six o'clock, a squadron of canoes advanced, in good order, towards the ship. Surville, who now despaired to effectuate his purpose of disembarking, was desirous to oppose the attack as early as possible, that he might lessen, as much as he could, the danger to which these brave islanders exposed themselves by their imprudent courage; he therefore fired: but as the canoes came on in a close body, and the ship's guns were loaded with grape shot, it is but too probable, that the Indians had fatal experience of the superiority of our forces; their route and hasty flight prove, at least, that they perceived the insufficiency

science of their own. As soon as they had disappeared, Surville gave SURVILLE. orders to set sail, and continued his course.

1769.

M. Labé had seen this island near enough, when he went in the yawl, to examine the approaches to it. The coast, which is rather high, is formed of rocks that present the appearance of a pier: on the shore he perceived fine plantations of cocoa-nut palms; and the island in general appeared very well cultivated. The landing-places are safe; no breakers were seen on them: but at the distance of a league and a half he could find no bottom with a line of forty-five fathoms.

At sun-set, the most southern point of the island bore E. $\frac{1}{4}$ S.E. 3° S. at two leagues distance: the point of the main land, most to the south, lay W. $\frac{1}{4}$ N. W. at ten leagues: and at S. $\frac{1}{4}$ S. E. was another land, in the distance, having the appearance of an island. (Variation 8° N. E.)

In the morning of the 3d, two more islands were descried in the line with that which, the day before, had borne S. $\frac{1}{4}$ S. E.: they lie N.W. $\frac{1}{4}$ N. 3° N. and S.E. $\frac{1}{4}$ S. 3° S. and are divided by a channel, about a league and a half in breadth. That in the midst is on the same meridian as the *île des Contrariétés*: and the western point of the latter (of which the most southern part being flat, was now no longer in sight) seemed to be distant eight leagues from the northern point of the three; which three, for their exact resemblance, were named *les trois Sœurs* (the three Sisters). Beyond, at a great distance, were perceived other lands, lying in the S. W. $\frac{1}{4}$ W. 5° S.

SURVILLE. S. But, as the point which the day before had borne W. $\frac{1}{4}$ N.W. was now no longer seen, and none could be distinguished to the west of the Three Sisters, it was concluded, that between those islands and the lands before descried, there must be either a great opening, or a great passage. The fear of being inclosed in any gulf, from which he could not easily have extricated himself with winds constantly from the eastern quarter, or of being entangled in any archipelago, determined Surville to continue his course to the south-east, in hopes that he should in time arrive at the extremity of these lands or islands, along which he had already sailed for about 120 leagues.

He had passed through the channel formed between the islands of the Three Sisters, and that of *les Contrariétés*. The wind was very variable and very slack; and it was perceived, that the currents carried him southward.

On the 4th, between nine and ten in the morning, the Three Sisters bore, one with another, N. W. $\frac{1}{4}$ N. and in that position seemed to form only a single island.

In the afternoon there was discovered to the S. S. W. of the most southern of the Three Sisters, a fourth island, which was named *île du Golfe*. The weather was squally, the waves ran high, and the ship, unable to struggle with the swell when it was calm, was confined upon the lands which lay south-east of the Three Sisters: they endeavoured to double the eastern point of these lands, in hopes that they might end there; and happily the currents set to the south-east in that part, which bore them off from the coast. Several soundings

were taken within a mile at most of the shore; but no bottom was found with a line of sixty fathoms: it was with some difficulty that they could tack about, and stand off, so as to clear the coast; and they were obliged to lie as near the wind as possible, to get up the coast as high as the Three Sisters.

SURVILLE.

1769.

Many canoes came up the same afternoon, and loitered round the vessel: they were manned by people much like those who had been seen at *les Contrariétés*. Signs of friendship, and invitations to go on board, were made to them also, but without effect.

When they were sufficiently free from the coast, the ship resumed her course to the S. E. as much as the wind would allow: no effect of currents was felt here.

On the 5th, at eight in the morning, some islets were seen in the line of the ship's course, but at a great distance. At this period, the nearest land bore S. $\frac{1}{4}$ S. W. 3° S. distant four leagues; this was the eastern cape, the apparent termination of these lands, which had been now in sight for fifteen days. The point which could be descried the furthest to the west, lay to the W. 2° N. of the *île du Golfe*, distant seven or eight leagues; and the most southerly of the Three Sisters lay W. N. W. 5° W. at the distance of five leagues. (Variation 8° N. E.) The latitude was determined by observation at noon, to be $10^{\circ} 20'$, and it was computed that they were $4^{\circ} 43'$ to the east of Port Praslin.

The

SURVILLE.

1769.

The winds were contrary the whole day, and there was much calm, which was interrupted only by squalls. At sun set they were seven or eight leagues from the small islands discovered in the morning, and they lay S. $\frac{1}{4}$ S. E. At the same instant the eastern cape, terminating the main land, bore S. $\frac{1}{4}$ S. W. 2° S. at the distance of ten or twelve leagues. (Variation 8° N. E.) Part of the high lands to the W. and W. N. W. of the cape were still distinguishable.

These small islands which appeared to be the end of all the chain of land, were named *îles de la Deliverance* (Deliverance Islands); and the cape was called *Cap Oriental*; but it seems that the latter name, which must be common to so many capes, ought to be changed for that of *Cape Surville*. They found themselves able the next day to take a near examination of these two islands, and perceived them to be flat and well-wooded. The coast, at the extremity of Cape Surville, is higher; and the channel that divides it from them is about three leagues over: beyond were seen high and mountainous lands. The most northerly of these two islands is in $11^{\circ} 1' 30''$ S. latitude, and $4^{\circ} 48'$ east of Port Praslin, at its northern point: Cape Surville is on the same parallel, only five minutes to the west of this island.

It was not till the afternoon of the 6th that they were able to leave Deliverance Islands to the N. W. and find an open sea. They conceived that, immediately beyond Cape Surville, the southern coast of the land must turn suddenly to the south-west; for, as they continued their course to the south-east, it was very soon out of sight.

The

The 7th, at sun-rise, high mountains were still distinguish-
able in the W. N. W. and at nine the same morning, land was no
more seen.

SURVILLE.

1769.

The four officers, from whose journal the above account is extracted, all agree in thinking, that this vast extent of coast in sight of which they had failed, does not belong to a single continent, but is divided into a number of islands, particularly at the east end; and that the large islands in this Archipelago are surrounded by others of smaller size. Their opinion was afterwards confirmed by the testimony of the young savage taken from Port Praslin: he asserted, as soon as he could express himself sufficiently, that on the other side of his country was a sea without bottom.

We cannot but regret that the contrary winds prevented Surville from examining the lands he had discovered with more exactness; but had it been in his power to vanquish this obstacle, prudence and humanity would still have made it necessary not to lengthen his stay upon a coast where, from the ferocious character of the inhabitants, he must have been entirely without hope of procuring refreshments: while a disease, which by no other means could be alleviated, was continuing its ravages, in such a manner as would soon have made the further navigation of the ship impracticable. Since his departure from Port Praslin, in the course of sixteen days the scurvy had carried off eighteen men of his crew; and the others were either seized with the disorder, or had symptoms of it. There was an urgent necessity of gaining some harbour where he could establish himself in security, and might procure for his sick the rest, good air, and whole-

SURVILLE. some aliments so necessary to their recovery. Surville then determined to direct his course to New Zealand, the nearest land to that which he was quitting, and at that time unknown, except from the account of Abel Tasman.

1769.

We will not follow him in this part of his Voyage; and it would be inconsistent with our subject, to recount the events which took place while he remained in one of the ports at the north of New Zealand. The description of this island, and its inhabitants, given by Captain Cook, has pre-occupied the observations we might transcribe from the French Captain [E]: we shall see in the sequel, that the two Navigators had arrived at the same time, at the same point, by very different routes.

Surville arrived at the northern coast of New Zealand, on the 16th of December, after a navigation of thirty-nine days from Port Praslin; and he remained there till the first of January, 1770. The hopes he had conceived from this refreshment could be realized only in part, for he was obliged to repel the attacks of the natives by force; and it was only by means of his superiority in arms, that he was able to keep his post on the land, to provide for the most immediate necessities of his vessel, and to procure some relief for the sick, by the use of fresh meat and some vegetables. This slight assistance moderated the subsequent progress of the scurvy, but did not radically heal it: from the 7th of November, the time when he quitted the Archipelago of the Arfacides, to the 1st of January, when he left New Zea-

[E] See also the *Nouveau Voyage à la Mer du Sud*, by Captain Marion, and the *Chevalier du Clefmeur*, which contains some very interesting remarks on New Zealand,

land,

land, this scourge of Navigators had carried off thirty-nine persons; and, in the space of less than three months, fifty-seven fell victims to it.

SURVILLE.

1769.

All idea of making discoveries was then of necessity abandoned; and when they sailed from New Zealand, nothing was thought of but how they might reach some European settlement, to save from death the melancholy remainder of the crew, which now was hardly able, with the assistance of the officers, to work the sails.

They were destined to meet another misfortune on the coast of Peru; the vessel was already at anchor, on the 8th of April, before Chilca, near Port Callao of Lima, when Surville embarked in the yawl, that he might the sooner get to land, to solicit in person the assistance which was rendered so pressingly necessary by the unhappy situation of his people; but the slight vessel wherein his zeal had exposed him, was unable to get over the bar on which the sea broke, and overfet. Surville was drowned, and two sailors with him; a third was fortunate enough to swim to land.

Thus concluded a voyage, the object of which had been constantly opposed by a succession of misfortunes. The endless delays of the Spanish custom-houses and formalities, retained the vessel before Lima for *three years*: in this interval nineteen men died, and twenty-five more deserted. Sixty-three Spaniards obtained permission from the Viceroy, to supply in part the deficiencies of the French crew; and with this reinforcement, M. William Labé, who departed from Callao on the 7th of April, 1773, arrived at Port *L'Orient* the 23d of August following.

THE COMPLETE RECOGNITION

OF THE

TIERRA AUSTRAL DEL ESPIRITU SANTO

OF QUIROS,

UNDER THE NAME OF

THE NEW HEBRIDES.

BY CAPTAIN COOK.

IN M.DCC.LXXIV.

COOK.

1774.

THE Tierra Austral was visited, in 1774, by Cap. Cook, who made a complete recognition or re-discovery of it. We will not undertake to follow his course in the windings of this Archipelago, nor to relate the particulars of his navigation, and the abode he made in some of the islands belonging to it: the labours of this celebrated Navigator are too well known, too present to the minds of all Europe, to require that we should go into those details; we shall content ourselves with transcribing the account, which he himself has given of this part of his

his important discoveries *. We shall add to it only some few particulars concerning each of the islands visited by the English, that the reader may have under his eye some points of comparison, if he wishes to collate the account of Quiros, of M. de Bougainville, and Captain Cook, when those three Navigators saw the same objects.

COOK.

1774.

It was the 16th of July, 1774, about three in the afternoon, when Captain Cook first saw the *Australia del Espiritu Santo*: he approached it at the eastern coast of Aurora Island. “ Thus, says Mr. Forster, after having passed two years in reconnoitring the discoveries of former Voyages, rectifying their errors, and combating vulgar opinions, we began a third, by looking for a group of islands which M. de Bougainville, constrained by necessity, (*he was in want of provisions*) had been obliged to quit precipitately.”

“ The northern islands of this Archipelago, (says Captain Cook) were first discovered by that great navigator Quiros, in 1606 ; and, not without reason, were considered as part of the southern continent, which, at that time, and until very lately, was supposed to exist. They were next visited by M. de Bougainville, in 1768 ; who, besides landing on the Isle of Lepers, did no more than discover that the land was not connected, but composed of islands,

* In the French original the reader is informed, that the author used the excellent translation of M. Dèmeunier in making his extracts ; we, of course, have gone back to Cook's own Narrative in English, and therefore that passage is suppressed. The books cited here are, Cook's Second Voyage, Vol. II. p. 95, &c. and Forster's Voyage, Vol. II. p. 199, &c.

COOK.

1774.

which he called the Great Cyclades. But as, besides ascertaining the extent and situation of these islands, we added to them several new ones, which were not known before, and explored the whole, I think we have obtained a right to name them; and shall in future distinguish them by the name of the New Hebrides. They are situated between the latitude of $14^{\circ} 29'$, and $20^{\circ} 4'$ S. and between $166^{\circ} 41'$, and $170^{\circ} 21'$ E. longitude, (from Greenwich, $164^{\circ} 21'$, and $168^{\circ} 1'$ E. from Paris) and extend 125 leagues in the direction of the N. N. W. $\frac{1}{2}$ W. and S. S. E. $\frac{1}{2}$ E.

“ The most northern island is that called by M. de Bougainville, Peak of the Etoile. It is situated, according to his account, in latitude $14^{\circ} 29'$; longitude $168^{\circ} 9'$ ($165^{\circ} 49'$ E. of Paris) [B], and N. by W. eight leagues from Aurora.

“ The next island, which lies farthest north, is that of Tierra del Espiritu Santo. It is the most western and largest of all the Hebrides, being 22 leagues long in the direction of N. N. W. $\frac{1}{2}$ W. and S. S. E. $\frac{1}{2}$ E. 12 in breadth, and 60 in circuit. We have obtained the true figure of this island very exactly. The land of it, especially on the west side, is exceeding high and mountainous; and, in many places, the hills rise directly from the sea. Except the cliffs and beaches, every other part is covered with wood, or laid out in plantations. Besides the bay of St. Philip and St. Jago, the isles

[B] The *Pic d'Etoile* is placed, in M. de Bougainville's chart, in $40^{\circ} 26' \frac{1}{4}$ S. latitude, and $166^{\circ} 41' \frac{1}{4}$ E. from Paris. The position assigned by Cook is, doubtless, that which he himself had ascertained.

which

which lie along the south and east coast cannot, in my opinion, fail of forming some good bays or harbours."

COOK.

1774.

Captain Cook did not anchor in this harbour, but contented himself with plying off the coast, and sending the boats to land. He had approached on the western coast. On sight of these vessels the canoes of Indians which were in the bay, rowed to land in all haste. They were seen, however, sufficiently near for it to be perceived that they were naked, wearing only a girdle, with large leaves hanging to it, and reaching as low as the knees before and behind. Their colour was very dark, and their hair woolly, or cut short, which made it seem so: their canoes were small, and had outriggers.

Captain Cook advanced the second day to within seven or eight leagues from the head of the bay, which is terminated by a low beach, behind which is an extensive flat covered with wood, and bounded on each side by a ridge of mountains.

He proceeded, the day following, to within two miles from the most southern part of the bay: and as he had occasion to observe the latitude there twice, and as that of the point where he stopped, taken from his own chart, is $15^{\circ} 20'$, we may fix the head of the bay at $15^{\circ} 22'$.

"Three sailing canoes, which had been following us some time, (says Captain Cook) came up. There were five or six men in each; and they approached near enough to receive such things as were thrown

COOK.

1774.

thrown to them fastened to a rope, but would not advance alongside. They were the same sort of people as those we had seen the preceding evening; indeed we thought they came from the same place. They seemed to be stouter and better shaped men than those of Mallicollo, (which Cook had visited before this place) and several circumstances concurred to make us think they were of another nation. They named the numerals as far as five or six, in the language of Anamocka[c], and understood us when we asked the names of the adjacent lands in that language." (*Cook*) "We spoke to them different words of the language of Mallicollo, and of that of Tanna, (another more southern isle which they had visited) but they did not know them, or we pronounced them too ill to make ourselves understood." (*Forster*.)

"Some of them had black, short frizzled hair, like the natives of Mallicollo; but others had it long, tied up on the crown of the head, and ornamented with feathers like the New Zealanders. Their other ornaments were bracelets and necklaces. One man had something like a white shell on his forehead; and some were painted with a blackish pigment. I did not see that they had any other weapon but darts and gigs, intended only for striking of fish. Their canoes were much like those of Tanna, and navigated in the same manner, or nearly so. They readily gave us the names of such parts as we pointed to; but we could not obtain from them the name of the island." (*Cook*.) "We offered them medals, nails, stuffs of Otaheité, and red serge, but they seized the nails with

[c] One of the Friendly Isles.

remarkable

remarkable eagerness. Quiros left perhaps some works in iron on the island, which have thus become precious. They tied a branch of the pepper-plant to the same cord with which we had conveyed the nails to them, and it seems that they could only offer us this emblem of friendship." (*Forster*.)

COOK.

1774.

"At length, seeing our boats returning from land, they paddled in for the shore, notwithstanding all we could say or do to detain them."

"As I had not time to spare, I steered down to leave the bay. During the fore-part of the night, the country was illuminated with fires, from the sea-shore to the summits of the mountains, but this was only on the western side of the bay."

"After the Tierra del Espíritu Santo, the next considerable isle is *Mallicollo* [D]: it extends N.W. and S.E. and is 18 leagues long in that direction. Its greatest breadth, which is at the S.E. end, is eight leagues. The N.W. end is two-thirds this breadth; and nearer the middle, one-third. This contraction is occasioned by a wide and pretty deep bay on the S.W. side [E]. (The port

[D] Quiros called it *Manicolo*, after the report of the inhabitants of the island Taumaco. And Cook says, that some of his people also pronounced it *Manicolo*, or *Manicola*. P. 32.

[E] The French translation (of *Démeunier*) says S. E. which is an error of the press. The original has it S. W. and that is in fact the side where the great bay in question is situated.

Z

which

COOK. which Capt. Cook named Port Sandwich, is situated near the S. E.
point). To judge of this island from what we saw of it, it must
1774. be very fertile, and well inhabited. The land on the sea-coast is
rather low, and lies with a gentle slope from the hills which are in
the middle of the island." (*Cook*).

The English were well received at Mallicollo.

"The inhabitants eagerly accepted stuffs of Otaheité, and offered in exchange some of their arrows, at first those which were armed only with wood, afterwards others armed with points of bone, and smeared with a blackish gum, which occasioned the supposition that they were poisoned [F].

The island produces the cocoa-nut tree, the bread fruit, the banana, and yams are common there. They found on the beach a fruit resembling an orange, which the islanders call *Abbi-mora*. As this was decayed they could not judge whether it is fit for eating. "The name which the natives give to this fruit is that which Quiros gave to it; another proof that the descriptions of the lands which he discovered are exact. We had found shaddocks in the Friendly Islands, but no orange had ever been seen by us on the islands of the

[F] The experiment was made upon a dog, but the poison did not appear to produce any effect. Some days after it was repeated, and this time they scraped the resinous substance, and a greenish earth that adhered to the point of the arrow, and introduced them into the wound: the animal was soon affected by the experiment, but did not die.

SOUTH-EAST OF NEW GUINEA.

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Pacific Ocean. Thence we may believe what Quiros says of the natural productions of *Mallicollo*." [G].

Cook.

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" At night we attempted to fish: and a shark was taken of nine feet in length; an Indian sucking-fish, and two great red fish of the species of the sea-bream [H]." (*Forster*).

" The island of *St. Bartholomew* lies between the S. E. end of the *Tierra del Espiritu Santo*, and the north end of *Mallicollo*; and the distance between it and the latter is eight miles. This is the passage through which M. de Bougainville went, and the middle of it is in latitude $15^{\circ} 48'$ south."

" The *Isle of Lepers* lies between *Espiritu Santo* and *Aurora Island*, eight leagues from the former, and three from the latter, in latitude $15^{\circ} 22'$, and nearly under the same meridian as the S. E. end of *Mallicollo*. It is of an egg-like figure, very high, and 18 or 20 leagues in circuit." (*Cook*).

" As we approached the *Isle of Lepers*, and drew near the middle of it, we saw people on the shore, and many beautiful cascades of

[G] Quiros knew *Mallicollo* only by the reports of the Indians of *Taumaco*. In the *Tierra Austral* he visited only the neighbourhood of *St. Philip* and *St. James's* bay, where he saw oranges.

[H] The sailors who had eaten of these breams were attacked by violent cholics, and for a very long time felt the effect of the poison. The same accident happened to the crew of Quiros, in the bay of *St. Philip* and *St. James*.

COOK. water pouring down the neighbouring hills." (*Cook*). "All the
 1774. plain at the north-east end is lower, and covered with different trees;
 palm trees, in particular, are innumerable, and, to our great surprise,
 they grow upon the hills." (*Forster*).

"At half a mile from land we found 30 fathoms, on a sandy bottom."

"Some canoes were seen, but they would not approach the vessel. On the sand was a great number of the inhabitants, armed with bows and arrows. They are of a very dark colour; and, excepting some ornaments at their breast and arms, seemed to be entirely naked." (*Cook*).

"*Aurora*, *Whitfuntide*, *Ambrym*, *Paoom*, and its neighbour *Apee*, *Three-Hills*, and *Sandwich Islands*, all lie nearly under the meridian of $167^{\circ} 29'$, or $30'$ E. (of Greenwich $165^{\circ} 9'$, or $10'$ E. of Paris) extending from the latitude of $14^{\circ} 51' 30''$ to $17^{\circ} 53' 30''$ [1].

"The island of *Aurora* lies N. by W. and S. by E. and is eleven leagues long in that direction; but I believe it hardly any where exceeds two, or two and a half in breadth. It hath a good height, its surface hilly, and every where covered with wood, except where the natives have their dwellings and plantations." (*Cook*).

[1] The islands Pic de l'Etoile, *Aurora*, *Lepers*, *Whitfuntide*, *St. Bartholomew*, *Espiritu Santo*, *Mallicollo*, and *Ambrym*, on which is a volcano, were seen by M. de *Bougainville*: the other islands of this Archipelago have been seen and visited only by Captain *Cook*.

"*Aurora*

“ Aurora island bears cocoa-nut palms up to the very summit of the high mountains. We perceived for a moment, a small peak of rock, which M. de Bougainville named the Peak of the Etoile (from the name of one of his ships); but the clouds, which were carried by the wind with great swiftness, soon covered it.” (*Forster*). coox.
1774.

“ Finding ourselves very near Aurora Island, we had an opportunity of examining it at leisure. The whole island, from the sea-shore to the summits of the hills, seemed to be covered with wood, and every valley produced a fine stream of water.” (*Cook*). “ We had before our eyes a beautiful strand, and the most abundant vegetation imaginable. A fine plantation, surrounded with reeds, covered the declivity of the hill, and a charming cascade fell in the forest.” (*Forster*). “ We saw people on the shore, and some canoes on the coast, but none came off to us.” (*Cook*).

“ *Whitsuntide Isle*, which is one league and a half to the south of Aurora, is of the same length, and lies in the direction of north and south, but is something broader than Aurora Island. It is considerably high, and clothed with wood, except such parts as seemed to be cultivated, which were pretty numerous.” (*Cook*). “ This island, as well as that of Lepers, having a more gradual slope of the land than Aurora, appears to be more peopled, and fuller of habitations.” (*Forster*).

“ From the south-end of Whitsuntide Island to the north side of *Ambrym*, is two leagues and a half. This is about 17 leagues in circuit;

COOK.

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circuit; its shores are rather low, but the land rises with an unequal ascent to a tolerably high mountain in the middle of the island, from which ascended great columns of smoke; but we were not able to determine whether this was occasioned by a volcano or not. That it is fertile and well inhabited seems probable from the quantities of smoke which we saw rise out of the woods in such parts of the island as came within the compass of our sight; for it must be observed that we did not see the whole of it."

"We saw still much less of *Paoon* and its neighbourhood."

"The island of *Apee* is not less than 20 leagues in circuit; its longest direction is about eight leagues N. W. and S. E. It is of a considerable height, and hath a hilly surface, diversified with woods and lawns, the west and south parts especially; for the others we did not see."

"*Shepherd's Isles* are a group of small ones of unequal size, extending off from the S. E. point of *Apee* about five leagues, in the direction of S. E."

"The island *Three-Hills* lies south four leagues from the coast of *Apee*, and S. E. $\frac{1}{2}$ S. distant 17 leagues from Port Sandwich in Mallicollo. Five miles W. by N. from the west point of this island, is a reef of rocks, on which the sea continually breaks." (Cook).

"The island *Three-Hills*, is well wooded and probably well peopled, for on the coast were seen many of the natives, who resembled those of Mallicollo, and were, like them, armed with bows and arrows." (Forster).

"Nine

“ Nine leagues, in the direction of south from Three-Hills, lies *Sandwich Island*. *Two-Hills*, the *Monument*, and *Montagu Islands*, lie to the east of this line, and *Hinchinbrook* to the west, as also two or three small isles, which lie between it and *Sandwich Island*, to which they are connected by breakers.”

COOK.

1774.

“ The greater part of these islands, which we discovered at once, are inhabited, as we were convinced at night, by seeing fires even on those which by day had seemed deserted.”

“ *Sandwich Island* is 25 leagues in circuit; its greatest extent is 10 leagues; and it lies in the direction of N. W. by W. and S. E. by E. The north-west coast of this island we only viewed at a distance. The distance from the south end of *Mallicollo* to the north-west of *Sandwich Island*, is twenty-two leagues in the direction of S. S. E. $\frac{1}{2}$ E.” (Cook).

“ *Sandwich Island* is one of the most beautiful in the Archipelago of *Espiritu Santo*, and appeared well situated for an European settlement. To judge of it from the distance at which we saw it, it appeared less inhabited than those we had left to the north, which would make it more easy to fix a colony there.” (Forster).

“ In the same direction of S. S. E. $\frac{1}{2}$ E. lie *Erromango*, *Tanna*, and *Annatom*. The first is 18 leagues from *Sandwich Island*, and is 24 or 25 leagues in circuit. The middle of it lies in the latitude of $18^{\circ} 54'$, longitude $169^{\circ} 19' E.$ ($166^{\circ} 59' E.$ from Paris). The land is of a good height,

COOK. height, as may be gathered from the distance we were off when we
first saw it."

1774.

"*Tanna* lies six leagues from the south side of *Erromango*, extending S. E. by S. and N. W. by N. about eight leagues long in that direction, and every where about three or four leagues broad." (Tanna has a volcano in its south-east part).

"The isle of *Immer* lies in the direction of N. by E. $\frac{1}{4}$ E. four leagues from *Port Resolution* in Tanna; (which is at the south-east point of that island) and the island of *Erronan*, or *Footoona*, lies east in the same direction, distant 11 leagues. This, which is the most eastern island of all the Hebrides, did not appear to be above five leagues in circuit, but is of a considerable height, and flat at top. On the north-east side is a little peak, seemingly disjoined from the isle; but we thought it was connected by low land."

"*Annatom*, which is the southernmost island, is situated in the latitude of $20^{\circ} 3'$ S. longitude $170^{\circ} 4'$ E. ($167^{\circ} 4'$ E. from Paris), and S. 30° E. from *Port Resolution* in Tanna, whence it is distant 11 or 12 leagues. It is of a good height, with an hilly surface; and more I must not say of it." (Cook).

The island of Tanna is remarkable for a volcano, the flames of which are very luminous in the night: a rumbling noise, which accompanies the explosion, is heard at a great distance.

Captain Cook anchored at the south-east point, in a harbour which he named *Port Resolution*.

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1774.

This is the only anchorage at which the English remained any time in the vast group of islands they discovered. They took in wood and water there, but they obtained few refreshments.

They had been amicably received, though with a mixture of hostile appearances; but the subsequent conduct of the inhabitants proved that their first menaces meant nothing but defence in case they had been attacked. At first they manifested the same inclination to theft which is common to all the islanders in the South Sea; but they were restrained without the use of force, and in their visits on board, and the long and frequent communications with them on shore, they never stole the most trifling article: they never seemed even to display a covetous disposition; frequently the canoes came on board, and brought cocoa-nuts or bananas, which they offered without requiring any thing in exchange.

The stay the English made at Tanna gave Captain Cook and Mr. Forster a full opportunity of making very curious observations on the manners and disposition of the inhabitants, and on the different productions of the island. For these particulars, which are very interesting, but foreign to the subject of this work, we refer the reader to the accounts given by the navigator and the philosopher.

Captain Cook, after having finished his review of the Archipelago of Espiritu Santo, prepared to traverse the Great Ocean in its

A a

widest

COOK. widest extent, and though the use of salt meat in hot climates had
 1774. sensibly weakened his crew, he proposed not to put in any where
 in all that passage. Happily after sailing three days, having arrived
 at the latitude of $20^{\circ} 13'$ S. and longitude $164^{\circ} 49'$ E. from Greenwich,
 ($162^{\circ} 29'$ E. from Paris) he discovered a large country where no
 European navigator had ever touched. "In these latitudes (says
 Mr. Forster) M. de Bougainville met with a sea entirely tranquil,
 and many pieces of fruits and wood floated by his ship. This hap-
 pened nearly to the north-west of the land which we discovered,
 and which this skilful and intelligent navigator conjectured to lie in
 that direction."

This new land was named *New Caledonia*; but Capt. Cook could
 only examine the eastern coast. A refreshment of seven days, which
 he took in the harbour of *Balade*, near the north-west point of the
 island, enabled him to gain information sufficiently minute con-
 cerning the inhabitants and productions of this great country; and
 to his narrative we refer the reader.

Captain Cook, after quitting the harbour of *Balade*, endeavoured
 to beat up to the north-west, in order to double New Caledonia by
 the north; but falling in with reefs, the extent of which he could
 not judge, he was obliged to abandon this project, and directed his
 course to the S. E. along the eastern side of the island. He was
 opposed by the winds, and still more by the islets, reefs and shoals,
 multitudes of which lie off the southern end. These obstacles,
 which seemed to multiply continually, the want of provisions which
 began to be felt, and, in a word, the imperious law of necessity,
 4 constrained

constrained Captain Cook, for the first time, to quit a new land without having completely examined it. He steered towards New Zealand before the unfavourable season could set in to oppose his course.

COOK.

1774.

New Caledonia lies between $19^{\circ} 37'$, and $22^{\circ} 30'$ of south latitude; and between $163^{\circ} 47'$, and $167^{\circ} 14'$ of east longitude, from the meridian of Greenwich; ($161^{\circ} 17'$, and $164^{\circ} 54'$ east from that of Paris). It lies nearly N. W. $\frac{1}{2}$ W. and S. E. $\frac{1}{2}$ E. and is about 87 leagues long in that direction; but its breadth did not appear in any part to exceed ten leagues.

EXTRACT FROM THE JOURNAL OF THE VOYAGE
OF THE SPANISH FRIGATE PRINCESA,

From MANILLA TO SAN-BLAS IN CALIFORNIA, in 1780 and 1781.

In which it appears that the Spaniards have again met with the BAXOS DE LA CANDELARIA, or Candlemas Shoals, discovered in 1567 by MENDANA, to the North of the Island of SANTA-YsABEL, one of the Islands of SOLOMON [A].

THE Spanish frigate Princefa, after having met with the Isle of THE PRINCESA. Anchorites of M. de Bougainville, the islands of St. Matthias, and others situated to the north of New Ireland; and afterwards 1781.

[A] *Viage interessante de Manilla a San-Blas, per la Fragata Princefa, en los anos de 1780 et 1781. Manuscript.*

THE PRIN-
CESA.

1781.

the island of S. John of *Schouten* and *le Maire*, continued her course eastward, and on the 20th of January, 1781, found herself within a very small distance from a group of nine small islands, covered with palm-trees, surrounded with a bank of sand, and so disposed as to form within themselves a little gulf or inland sea, in which the water was perfectly tranquil, and might offer an excellent harbour should there be any passage between the islands, any opening in the bank of sand, through which a vessel could sail in. The latitude of these islands, their distance from the part of New Guinea, now called New Ireland, their aspect [B], and every other circumstance, conspire to prove that they are the same as those discovered by Le Maire and Schouten, in 1616, which the Dutch call *Ontong Java*, and which are marked upon the French chart [C]. The latitude of the southern part of this group was observed on board the *Princesa*, and was $4^{\circ} 53'$ S. and its longitude may be estimated at $156'$ [D] E. from Paris. It was not supposed that these islands could be inhabited; and though they sailed along the southern side of the sand-bank, at the distance of two cables off, not one canoe was seen.

Having quitted *Ontong Java*, they continued their route towards the S. E. with light winds during the day, and squally weather in

[B] The description of it, in the Spanish Journal, is perfectly conformable to the design given by *Fr. Valentin*, in his *Naaukeurige verhandeling van Banda*. P. 56.

[C] According to the narrative, the *Princesa* directed her course by Belin's *Chart of the Pacific Ocean*.

[D] See the remarks subjoined, § VIII.

the

the night, which obliged them to proceed with great vigilance, and to carry very little sail while it was dark.

THE PRIN-
CESA.

1781.

They failed till the 22d without discovering any land; but at ten in the evening of the same day, the night being remarkably dark, the roaring of the sea was heard suddenly on the north side; and at the same time they distinguished the white foam of waves breaking against a shoal, or reef, very near the vessel: they immediately set her head to the south-west, and steered in that direction, till they were sufficiently removed from the danger not to hear the noise of the sea. They called this shoal *El Roncador* (The Snorer).

The Spanish account does not give the position of this shoal, and refers to a Table of Latitudes and Longitudes, which, as well as the Charts and Plans, ought to be at the end of the Journal, but unfortunately is not subjoined to our copy.

Supposing that from the 20th at eight in the morning, to the 22d at ten at night, namely, in sixty-two hours, at eighteen or twenty leagues a day (twenty leagues to a degree) the Princessa must have gone about fifty leagues to the south-east, the latitude of the southern part of the *Roncador* might be about $6^{\circ}\frac{3}{4}$ and its longitude east from Paris about $157^{\circ}\frac{3}{4}$.

It is probable that this shoal is the same that Mendana called Candlemas Shoals [E]; the middle of which, in the account of Fi-

[E] See above in the account of Quiros's First Voyage.

THE PRIN-
CESA.

1781.

gueroa, is placed in $6\frac{1}{4}$ south latitude, which gives $6\frac{1}{2}$ for the southern extremity. The difference is in truth 25 minutes; but we know how little we can depend on the exactness of the latitudes reported by the Historians of the old Spanish Navigations, whose sole endeavour was to feed the curiosity of the reader with extraordinary events, and discoveries which might flatter avarice; always neglecting to point out the geographical positions with exactness; and, indeed, thinking so little of their importance, as, frequently, to omit them entirely.

Continuing her course towards the E. and E. S. E. as the winds permitted, the Princefa discovered an Archipelago of large inhabited islands. The port where she put in was formed by the three principal islands, and was named *Puerto del Refugio* (Port of Refuge); and the whole Archipelago received the name of *D. Joseph Galvez*. The Spaniards were well received, and laid in a plentiful stock of hogs, fowls, and different fruits. The natives are of a fine stature; some of them as much as six feet, and the women by no means disagreeable. They made the Spaniards very clearly understand, by signs, that two vessels, like the Princefa [F], had already touched there; and that the commanders, and six officers of each ship had slept ashore; from them these islanders had received glass beads, hatchets, &c. They knew forty-eight islands, of which they told the names. The harbour of the principal island, where the Princefa lay at anchor some days, is situated in $18^{\circ} 36'$ or $38'$ of south latitude, by observation; and $179^{\circ} 52'$ of longitude, E. from Paris, according to their reckoning, and the French chart, by which they regulated their course:

[F] It is probable that there were some other Spanish ships whose voyage is unknown to us.

the

the southern point of the same island is in $19^{\circ} 37'$ S. latitude, and in longitude $179^{\circ} 38'$ west of the same meridian. If we could depend upon this longitude, there would be no doubt that these islands were a part of the Archipelago of the *Friendly Islands*: we may at least conclude, that they are not far from them, to the west. We know that the natives of those islands which Cook visited, informed him, that there were many more further north, and further west. The southern parts of the Spanish discoveries are nearly on the same parallel as the most northern of those made by the Dutch and English. The islands where the *Princesa* touched, abound with hogs, fowls, cocoa-nuts, and all those productions that were found in the *Friendly Islands*. The Spaniards were received there as the English had been in those islands; they were entertained with feasts, similar to those exhibited to Cook at Hapae; and the natives do not appear to differ from the former in their manners, customs, mode of life, or any thing that is characteristic of a nation [G]. It is to be wished, that the Spanish government would publish a Narrative of this interesting Voyage, which informs us of many new and very productive islands, with others that offer no supplies, but should by all means be placed in the charts, for the security of navigation. The benefit to the public would be complete, if they would allow tables of geographical positions to be added, with such charts and plans as would augment our knowledge of those parts of the Great Ocean, which are situated to the south of the Equinoctial Line.

THE PRIN-
CESA.

1781.

[G] The inhabitants of the principal islands visited by the Spaniards, where they made some stay, frequently repeated the word *liley*, *liley*, *liley*, by way of approbation, which signifies *good*, or *good thing*, or *very well*. Captain Cook had made the same remark at Anamooka; and the same word, written by that Navigator, *leléi*, is used by the natives there in the same sense.

R E C O G-

R E C O G N I T I O N

Of the southern Coasts of Surville's ARCHIPELAGO OF THE ARSACIDES, and BOUGAINVILLE'S STRAIT, in 1788, By Mr. JOHN SHORTLAND, Lieut. of the British Navy, who, supposing it a New Discovery, gave these Lands the Name of NEW GEORGIA, and called the Strait SHORTLAND'S STRAIT.

EXTRACTED FROM

GOVERNOR PHILLIP'S VOYAGE TO BOTANY BAY.

CHAPTER XVIII [A].

SHORTLAND

1788.

THE ships Alexander, Friendship, Prince of Wales, and Borrowdale were fitted out from Botany Bay in the beginning of July, 1788, by Governor Phillip, to sail for England. The command and conduct of these vessels were intrusted to Mr. Shortland, Lieutenant of the Royal Navy; and it was decided that, as the season was too far advanced to take the southern course, he should steer

[A] *The Voyage of Governor Phillip to Botany Bay, &c. Compiled from the authentic Papers. London, printed for John Stockdale, Piccadilly. 1789. 4to. p. 183, to 205.*

north-

northward, and pass either through Endeavour Straits, or round New SHORTLAND Guinea.

1788.

The convoy sailed from Port Jackson the 14th of July: two of the ships parted company within the first days of the voyage; but the Alexander and the Friendship continued together.

The 19th, at noon, the men at the mast head discovered a very extensive shoal on the larboard beam, at the distance of two or three leagues, bearing from N. $\frac{1}{4}$ N. E. and S. $\frac{1}{4}$ S. W. and seeming to be about three leagues and a half long. The vessel sailed along it; but the breadth could not be ascertained, for the sand-bank was seen to extend as far as the eye could discern. Its latitude is $29^{\circ} 20'$ S. and its longitude E. from Greenwich, $158^{\circ} 48'$ ($156^{\circ} 28'$ from the meridian of Paris). It was named by Lieut. Shortland *Middleton Shoals*.

In the afternoon of the 21st, land was discovered from the S. W. $\frac{1}{4}$ W. to W. $\frac{1}{2}$ S. at the distance of about eight leagues. It was soon perceived to be a very high island, which had a remarkable peak bearing S. S. W. It was about six or seven leagues in length in the direction of N. N. W. It was named *Sir Charles Middleton's Island*; and is situated in $28^{\circ} 10'$ south latitude, and $159^{\circ} 50'$ east longitude ($157^{\circ} 30'$ from Paris). It was still in sight on the morning of the 22d.

On the 24th it was perceived, by an observation of the sun and moon, to determine the longitude, that the dead reckoning was erroneous more than two degrees to the west.

B b

From

SHORTLAND 1788. From the reckoning, and from observation, it was concluded on the 28th, that they were not far from New Caledonia. The sight of several land-birds this day and the preceding, confirmed Mr. Shortland in the opinion, that he had passed very near the N. W. part of that island; but as it was not perceived, it is probable that the land is very low at that extremity.

Thursday the 31st, at noon, land was discovered from N. $\frac{1}{2}$ W. to north-east; and the distance was estimated at five or six leagues. The ship was now in latitude $10^{\circ} 52'$ south; and Lieut. Shortland's first conjecture was, that this land might be *Egmont Island* seen by Capt. Carteret (the *Santa-Cruz* of Mendana). The longitude, indeed, did not agree with that which the English navigator had assigned to that island, and the difference even amounted nearly to $3^{\circ} \frac{2}{3}$ [B]; but Mr. Shortland thought that the effect of currents might have produced it. He had soon opportunity to satisfy himself, that the land in sight was not Egmont Island. It extended to the north-west, and he followed it in this direction for six or seven leagues, when he perceived that it was an island terminated by two points; of which, that at the S. E. was named *Cape Sidney*, and that at the N. W. *Cape Phillip* [c]. He continued the same course, after doubling the latter point, till, at seven in the afternoon, the men who were reefing the top-sails discovered more land, exactly in the ship's course. Mr. Shortland determined to lie-to all night, with the head off land;

[B] Carteret has placed Egmont Island in $164^{\circ} 49'$ east of Greenwich, and the Alexander was $161^{\circ} 11'$.

[c] See Charts III. and VIII.

and made a signal for the *Friendship* to do the same. At day-break SHORTLAND he was surprised to see a most mountainous coast, bearing from N. E. $\frac{1}{4}$ E. to W. N. W. about five or six leagues distant. On sight of this, all idea of Egmont Island vanished; and Mr. Shortland was inclined to think, that this new land was united to that he had seen the preceding day. He bore away W. $\frac{1}{4}$ N. W. and W. by N. $\frac{1}{2}$ N. following the direction of the coast, at the distance of five or six leagues.

1788.

The most eastern point of this land he called *Cape Henflow*; the most western, *Cape Hunter*. Between these two points the land is very singularly mountainous; the summits of the mountains appearing among the clouds, to a prodigious height. One of these summits, by which the land may be known, is elevated above all the rest, and was thought equal, if not superior in height to the peak of Teneriffe. It received the name of *Mount Lammas*, from the first of August, on which it was discovered. Its latitude, by observation at noon, was $9^{\circ} 58'$ south, and the longitude $160^{\circ} 21'$ east ($158^{\circ} 01'$ east from Paris). They kept the same course, and within the same distance from the coast, till three in the afternoon, when the water appearing suddenly to change colour, they brought-to and sounded, but found no ground with 120 fathoms of line. At four, a part of the land, which had the appearance of a harbour, bore N. N. E. distant seven leagues. The land still continued mountainous; and at six o'clock bore from N. E. to N. W. by W. The furthest point in sight appeared to be at the distance of thirteen or fourteen leagues, and was named *Cape Marsh*. At half past six the weather became very stormy; the squalls were frequent, and the rain abundant,

SHORTLAND dant, with lightning and thunder; and it was judged prudent to lie-
to for the night.

1788.

The ships made sail again soon after five, on the 2d of August, and bore away west by north; but the weather being hazy, no land was then in sight: many flying fish were seen at this time. At eleven there was an appearance of clearer weather, and Mr. Shortland determined to make to land again. At noon the latitude was, by observation, $9^{\circ} 40'$ south, and the longitude $158^{\circ} 42'$ east. ($156^{\circ} 22'$ east from Paris.) They continued to steer N. W. to discover whether they had reached the utmost extent of the land; and whether an open sea could be found, which might permit them to make their course northward. They could not acquire that knowledge this day; and at nine in the evening they brought-to.

The next day, Sunday August 3, at three in the morning land was discovered from the N. N. E. to N. W. the wind was very slack, and it was determined to stand off. At six, the land in sight appeared like several islands, and an endeavour was made to pass between them to the north: but as they approached, it was perceived that all these points were joined together by a low land covered with trees. As the land rose in nine roundish points, which the seamen call Hummocks, this place was named *Nine Hummock Bay*. At noon the ships stood to the S. W. to get out of this recess. The latitude was $8^{\circ} 55'$ south; and the longitude E. from Greenwich, $158^{\circ} 14'$ ($155^{\circ} 54'$ east from Paris). The space, comprehended between the two extreme points, extended from the E. $\frac{1}{4}$ N. E. to the west. The eastern point was named *Cape Pitt*, and the western,
Cape

Cape Nepean. They had now light airs, and calms succeeding at SHORTLAND intervals: but at two in the afternoon a breeze sprung up from the north-east; and at four, Cape Nepean bore N. W. $\frac{1}{2}$ W. distant five or six leagues. At six Mr. Shortland slackened sail; and as he hoped that he had at length reached the extremity of this land, which he had now coasted for three days, he stood off and on all night, under double reefed top-sails.

1788.

At five in the morning, on Monday the 4th of August, he made sail again; and at six a bluff point of the island bore N. N. W. distant five or six leagues: this was called *Point Pleasant*. At noon the latitude was, by observation, $8^{\circ} 54'$ south; the longitude $157^{\circ} 44'$ east [E] ($152^{\circ} 24'$ east of Paris). Point Pleasant then bore east by north. At four the most western point then in sight bore N. W. by N. distant four or five leagues. They did not doubt that this was the extremity of the land; but they discovered afterwards that they had been mistaken; and this circumstance obtained for this point, the name of *Cape Deception*.

Although Lieut. Shortland did not doubt that he had now reached the extremity of the land, prudence required him to keep his ships under an easy sail all night, and to wait till the discovery of the morning should give him assurance of an open sea. Some islands, situated near Cape Deception, and seeming to form a good harbour, were called *Hammond's Isles*.

[E] In the original it is 154° , this is a false print; read 157° .

At

SHORTLAND

1788.

At day-light on the 5th, land was again discovered, from the E. N. E. to the W. $\frac{1}{4}$ N. W. $\frac{1}{2}$ N. forming a very deep bay: the land in this part, like that seen on the 3d, might be taken for six islands, till it was discovered that the hummocks were joined by a low neck of sand. Lieut. Shortland not knowing how far this coast might extend to the north-west, stood out to the south. At eleven o'clock an observation of the sun and moon, informed him that he was in longitude $157^{\circ} 30' \text{ E.}$ ($155^{\circ} 10' \text{ E.}$ from Paris); and at noon the latitude was determined, by observation, to be $8^{\circ} 44' \text{ south.}$ At the same time Cape Deception bore N. E. distant four or five leagues: and two remarkable hills, from their similarity called *The Two Brothers*, bore N. W. $\frac{1}{2}$ N. The extremity of the headland, on which these two hills rise, terminated the lands in sight to the west, and was computed to be distant ten leagues. At three in the afternoon they failed to approach the Two Brothers, and at six they were only seven leagues distant, in the S. E. $\frac{1}{4}$ S. at eight the ship lay-to for the night.

At five o'clock in the morning of Wednesday, August 6, they made sail again to the north-west; and at eight discerned a rock, so strongly resembling a ship under sail with her top-gallant sails flying, that the people of the Alexander were deceived by the appearance. They supposed that it might be one of the French frigates, *Bouffole* or *Astrolabe*, under the command of M. de la Pérouse; or one of the transports which had parted from them on the coast of New South Wales, and made the private signal to the Friendship, to announce that they saw a sail. This illusion lasted till they approached it within three or four miles. This rock was called *Eddystone*, and stands to the

the south south-west of the Two Brothers, at the distance of a ^{SHORTLAND} league.

1788.

Between ten and eleven some canoes were seen with Indians in them, who came close up to the ship without any visible apprehension. Ropes were thrown to them over the stern, of which they took hold, and suffered the ship to tow them along: in this situation they willingly exchanged a kind of rings which they wore on their arms; small rings of bone, and some beads of their own manufacture, for nails, glass-beads, and other trifles; giving, however, a manifest preference to whatever was made of iron. Gimlets were most acceptable; but they were also pleased with nails, and pieces of iron hoops. They dealt very fairly, not betraying the least desire to steal or to defraud. But though they so readily suffered themselves to be towed after the ship, they could not, by any means, be prevailed upon to go along-side; and whenever an attempt was made to haul up a canoe by one of the ropes, the men in it immediately disengaged themselves from that rope, and took hold of another. At the same time they seemed extremely desirous, as was judged from their signs and invitations, that the vessels should anchor on their coast, and the crews land with them: they even endeavoured to entice them, by showing the rinds of oranges and lemons, feathers of tame fowls, and other things, giving them to understand that they might be procured on shore. They presented also to Lieut. Shortland a fruit, which he conceived to be the bread-fruit; it was about the size of a small cocoa-nut, brown on the outside, and white within, and contained a kind of soft pithy substance, which stuck
between

SHORTLAND 1788. between the teeth, and was rather troublesome to chew ; with three or four kernels, not unlike chesnuts, but very white. Every Indian had a kind of box, or small case, made of the leaves of plantain, to contain his small rings and beads.

At noon, the extremity of the point of land which extends to the south of the two brothers, and was named *Cape Satisfaction*, bore N. N. E. and the Eddystone Rock N. $\frac{1}{4}$ N. W. distant four leagues. This rock is two leagues from Cape Satisfaction, to the S. S. W. As the land beyond this cape began to run northward, and none was perceived beyond, Mr. Shortland again entertained hopes of finding a passage.

The Indians, with whom they had conversed by signs, gave them to understand, that the island whence they came is called *Simboo*: for whenever an attempt was made to put that question to them, they pointed to the land near Cape Satisfaction, and uttered that word. Mr. Shortland remarks, that these men are very stout and well-built: and he concluded, with reason, from this strength of constitution, that the island must afford its inhabitants an abundant supply of fruits, vegetables, and other substances, fit for the support of human life. Comparing them with the New Hollanders for size and strength, it was impossible not to allow them the most marked superiority. Their canoes carried from six to fourteen men, and seemed to be well put together; the bows and sterns very lofty, carved with various figures, and stained with a kind of red paint: in a word, they were, to all appearance, formed upon the same model and construction

struction as those of Otaheité [G]. Every Indian wore, as an ornament round his wrist, one or more large rings of a white bone, and on his head a shell and a feather. Mr. Shortland proposed to purchase one of their lances, but could not obtain it.

SHORTLAND

1788.

About two in the afternoon, the Indians, finding that they had made a sufficient visit, and, doubtless, unwilling to let themselves be carried very far from their island, quitted the towing lines, and returned to land. From what could be perceived in the canoes of these islanders, there can be no doubt that the island produces coconuts, bread-fruit, bananas, and most other vegetables of the Society and Friendly Islands. Lieut. Shortland very much regretted that he could not accept the invitations of the inhabitants of *Simboo* [H], and was obliged to renounce the refreshments which their island might have furnished in plenty; but the length and uncertainty of the passage he had to make, seemed to forbid the least delay; nor was it at this time foreseen how much superior to every other consideration the acquirement of a wholesome change of diet for the crews would be found.

[C] The journal does not say whether these canoes have outriggers: but those seen by MM. de Bougainville on the south coast, and Surville on the north, were without them.

[H] After what happened to MM. Bougainville and Surville, in Choiseul Bay and Port Praslin, it is, without doubt, fortunate for Lieut. Shortland, that the circumstances of his voyage did not allow him to put in; there is every reason to suppose he would have found, to his peril, that the flattering behaviour of the Simboo Indians was only preparatory to some act of treachery.

SHORTLAND

1788.

The bay from which the Indians had come, was named *Indian Bay*. At three in the afternoon, the longitude was, by lunar observation, $156^{\circ} 55'$ E. from Greenwich, ($154^{\circ} 35'$ E. from Paris). And at six, the furthest point in sight, named *Cape Middleton*, bore N. and Cape Satisfaction E. $\frac{1}{2}$ S. the body of the land N. E. distant five or six leagues.

After lying-to all night, the ships made sail again at four in the morning of August 7, and bore away to the N. $\frac{1}{4}$ N. W. At five they saw the land they had lost sight of the preceding night, and six or more small islands bearing from N. E. to W. These were called the *Treasury Isles*; they are moderately high, and well clothed with trees and herbage. At noon the latitude by observation was $7^{\circ} 24'$ S. and the longitude E. from Greenwich, $156^{\circ} 30'$ ($154^{\circ} 10'$ E. from Paris). The northern extremity of the lands to the east, which was named *Cape Allen*, bore E. $\frac{1}{4}$ S. E. distant six leagues, and Cape Middleton S. E. at the distance of eight leagues. To the north of Cape Allen is a small island, which received the name of *Wallis*. At six in the evening the extremities of the islands then in view bore, one of them N. E. $\frac{1}{4}$ E. the other W. $\frac{1}{4}$ N. W. And the entrance between two islands, which seemed to form a passage or strait, bore N. $\frac{1}{4}$ N. E. at the distance of five or six leagues.

The *Alexander* and the *Friendship* had now run from the latitude of $10^{\circ} 44'$ to that of $7^{\circ} 10'$ S. and from $161^{\circ} 30'$ to $156^{\circ} 30'$ of longitude E. from Greenwich, the whole way nearly in sight of land. By proceeding westward to the south of the Treasury Islands, they might have been entangled with the yet unknown lands of New Guinea,

Guinea, and on this consideration Lieut. Shortland determined to try ^{SHORTLAND} to pass the strait which now opened near him. He satisfied himself, before the close of the day, that the channel had no immediate danger, and therefore kept under a commanding sail all night. At ten in the evening, the *Alexander* was nearly abreast of the two points that form the southern entrance to the strait: and as the soundings were very irregular, varying from 30 to 10 fathoms, on a soft sandy bottom, the anchors were cleared that they might be dropped immediately, if it should prove necessary.

1788.

At two in the morning, August 8, a strong ripple of a current was plainly perceived, and at five the ships had nearly cleared the straits. *Cape Alexander* (which was the name given to the western point of the main lands on the east) bore S. E. Some islands and rocks that lie off the most eastern point of the western island, that forms the strait with Cape Alexander, bore W. $\frac{1}{4}$ S. W. and the remotest point in sight N. W. $\frac{1}{4}$ N. distant 14 or 15 leagues. This point, which is very high (and was named *Binner Point*) is nearly at an equal distance from the first and last point of the lands which continue beyond the strait on the western side: the former of which, to the south, opposite to Cape Alexander, was called *Cape Friendship*; and the latter, to the north, *Cape le Gras*.

These straits, Lieut. Shortland judged to be between four and five leagues in length, and about seven or eight miles broad, running in a north-west direction, and conceiving himself to be the first navigator who had sailed through, he ventured to give them the name of *Shortland's Straits*. Nevertheless, on comparing his ac-

SHORTLAND count with that of M. de Bougainville's Voyage, which he had not
 1788. with him, there is reason to suspect that this strait may be the same through which the French navigator passed at the latter end of June, 1768; and that the island to which he gave the name of Simboo, so often repeated by the natives, is the same which M. de Bougainville then named *Choiseul Island*. This suspicion acquires still more force, from the perfect resemblance which is found on comparing the description of these Indians and of the construction of their canoes, which M. de Bougainville has given, with that of Mr. Shortland [1]. A small difference in the longitudes assigned by each, furnishes the chief reason for doubting the identity of the two straits; which, were it proved, would detract nothing from the merit of the latter navigator, who proceeding entirely by his own attention and sagacity, made his way through seas unknown to himself and those who were with him, which, if not wholly unexplored, had not, however, been surveyed before with that scrupulous exactness, and spirit of observation, which characterizes his recognition of them.

Mr. Shortland, on quitting this strait, congratulated himself on having discovered this vast extent of coasts, which he had reason to suppose one continued land, because, from the time when he first fell in with it, he had sailed at a very moderate distance, and had

[1] Only some of their vessels were larger. "In the largest were 22 men, in the ordinary ones eight or ten; and there were some of small size, which carried only two or three. These canoes seemed well constructed, were made very high at each end, &c. They wear bracelets, and on their foreheads and necks small plates; I know not of what substance, but it looked white." See *Bougainville's Voyage*, Chap. V. Page 264. 4to. edit. and Note I. subjoined here.

made every effort in his power to discover a passage to the north. "A ^{SHORTLAND} place called by one of the French navigators Port Surville, is probably ^{1788.} a part of it, as well as Choiseul Bay, but the points seen and described by the French discoverers are very few [K], and for the knowledge of the form and bearings of the rest of the coast, throughout the whole extent of near three degrees of latitude, and full five of longitude, we are indebted entirely to the researches of our own countryman: as we are for the beautiful delineation of the whole coast, to the care and ingenuity of his son Mr. John George Shortland[L]." The only places in which Mr. Shortland suspects it may be possible to find a passage, are between Cape Philip and Cape Henslow, and again between the Capes Marsh and Pitt. He leaves to other navigators, who may hereafter frequent the same seas, to determine his doubts; and recommends the route he took as the safest and most expeditious passage for the vessels bound from Port Jackson to China. Middleton Shoal is the only place of danger hitherto known in this course. Should any objection be made to the passing through a strait, when a more open sea may be obtained, he would recommend the large channel between Egmont Island (the Santa Cruz of Mendana) and the island of Simboo (the Archipelago of Arfacides of Surville) [M], and would by no means advise them to make the whole circuit to the east of the New Hebrides, (the Tierra del Espiritu Santo of Quiros, or the New Cyclades of Bougainville).

To the whole of the lands which Mr. Shortland discovered, consisting of the two principal islands on each side of the straits, and the

[K] See Note II. p. 201. [L] See Note III. p. 206. [M] See Note IV. *ibid.*

SHORTLAND ^{1788.} Treasury Islands, he gave the name of *New Georgia*. There is, indeed, an island of Georgia, to the east of Staten Land, among the discoveries of Capt. Cook in 1775, but their distance distinguishes them so well, that the name of the island of Georgia and that of New Georgia, cannot introduce any confusion into the nomenclature of geography.

The land on the western side of Shortland's Straits (or Bougainville's) continued to be very high, and extended as far as the eye could reach; from these circumstances, and from the direction in which it trended, no doubt was entertained of its joining that which was called by Capt. Carteret, *Lord Anson's Isle* [N].

As to the charts [O] given of these discoveries, Lieut. Shortland, though he cannot, from the distance at which they were taken, presume to vouch for the laying down of every single point, as if the coast had undergone a regular survey, undertakes to promise that they are sufficiently accurate for the direction of any future navigators; because he had, in the course of his progress along it, many opportunities of taking lunar observations [P].

At six in the afternoon, on the 9th of August, the extreme point in sight, of the high land to the westward of the passage, bore S. W. by S. distant 12 or 14 leagues: and at the same time two islands were discovered to the N. W. $\frac{1}{4}$ N. distant five or six leagues. They were supposed to lie in $4^{\circ} 50'$ S. latitude, and $156^{\circ} 11'$ E. longitude, from Greenwich. ($153^{\circ} 51'$ E. from Paris).

[N] See Note V. p. 207. [O] See Note VI. *ibid.* [P] See Note VII. *ibid.*

At day-light on Sunday, August 10, Lieut. Shortland set his ^{SHORTLAND} steering sails, and bore away to the north-west, in order to see, more distinctly, the islands he had discovered the preceding day. At six ^{1788.} in the morning four were in sight, and bore south-west, distant six leagues. It was at first thought that they would prove to be the *Nine Islands* seen by Capt. Carteret; but as neither the number nor the longitude was found to correspond, Mr. Shortland concluded they were not the same [Q]. The weather was squally and unsettled, and, therefore, instead of following the track of Carteret, and passing through St. George's Channel, he determined to go round by the north of New Ireland.

[Q] See the preceding account of Carteret's discoveries, p. 69.

TABLE

SHORTLAND 1788. TABLE of the LONGITUDES and LATITUDES of the most remarkable Points of the South Coast of NEW GEORGIA, (Surville's Archipelago of the Arfacides) as they were determined by Mr. SHORTLAND.

(See PHILLIP'S VOYAGE, p. 221.)

NAMES OF PLACES.	SOUTH LAT.		LONGITUDE*.			
			East from Greenwich.		East from Paris.	
	Deg.	Min.	Deg.	Min.	Deg.	Min.
Cape Sydney - - - - -	10.	48	161.	41	159.	21
Cape Phillip - - - - -	10.	34	161.	25	159.	05
Cape Henflow - - - - -	10.	00	161.	12	158.	52
Cape Hunter - - - - -	9.	42	160.	37	158.	17
Cape Marsh - - - - -	9.	21	159.	30	157.	10
Cape Pitt - - - - -	8.	55	159.	03	156.	43
Cape Nepean - - - - -	8.	51	158.	10	155.	50
Cape Deception - - - - -	8.	33	157.	37	155.	17
Hammond Isles - - - - -	8.	46	157.	39	155.	19
Point Pleasant - - - - -	8.	50	157.	50	155.	30
Indian Bay - - - - -						
Cape Satisfaction - - - - -	8.	09	157.	06	154.	46
Eddystone - - - - -	8.	12	157.	08	154.	48
Cape Middleton - - - - -	7.	45	156.	48	154.	28
Cape Allen - - - - -	7.	28	156.	48	154.	28
Cape Stephens - - - - -	7.	13	156.	17	153.	57
Point Danger - - - - -	7.	00	156.	27	154.	07
Cape Alexander - - - - -	6.	50	156.	40	154.	20
Lord Hood's Island - - - - -	7.	15	156.	48	154.	28
Cape Friendship - - - - -	6.	50	156.	08	153.	48
Shortland's Straits - - - - -	6.	55	156.	30	154.	10
Cape le Cras - - - - -	5.	50	156.	08	153.	48
Cape Binmer - - - - -	6.	17	155.	58	153.	38
Treasury Islands, from 7° 30' S. Lat. and 156° 08' Long. E. from Greenwich, to 6° 38' of Latitude, and 156° 27' of Longitude.	from 7. 30 to 6. 38		from 156. 08 to 156. 27		from 153. 48 to 154. 07	
The Four Islands - - - - -	4.	50	156.	10	153.	50

* It will be seen in the subjoined analysis of the chart of the Discoveries of the French, &c. that all Mr. Shortland's longitudes should be lessened 34 minutes.

N O T E S,

By the AUTHOR of this WORK, relative to Lieut. SHORTLAND'S
V O Y A G E.

N O T E I. On PAGE 196.

THE compiler of Mr. Shortland's Voyage, might have found SHORTLAND
1788.
some more characteristic points of resemblance than the construction of the canoes, and the appearance of the inhabitants, if he had cast his eyes upon Chart XII. of M. de Bougainville's Voyage. He would there have seen, that the latitude, the figure of the land, and many geographical particularities, make it indubitable that the strait named *Shortland's* in 1788, is actually *that of Bougainville*, discovered in 1768. The difference of one degree and a half of longitude between the accounts of these two navigators, will not seem astonishing, when it is observed that Bougainville had entirely crossed the Great Pacific Ocean, without having had opportunity to rectify the reckoning of his course.

N O T E II. PAGE 197.

THE discovery of M. de Bougainville and that of Surville taken together, comprise a chain of land occupying near *six degrees of*

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latitude,

SHORTLAND *latitude, and eight degrees of longitude*, which is a space much greater than that passed by Mr. Shortland. And certainly it appears astonishing, that the compiler of the English voyage should think himself authorized to say, that the French navigators have seen and described only a very few points. “The points seen and described by the French discoverers are very few.” M. de Bougainville has given a particular chart of the strait he discovered, and the adjacent lands: he sent his boats to visit *Choiseul Bay*, of which they took the plan, and were there engaged in a combat: he communicated and trafficked with the natives of the island *Bouca*, to the north-west of his strait, &c. &c. *Surville* passed more than a week in *Port Praslin*; and has informed us of the nature of the place, its productions and inhabitants: he communicated with those of the *île des Contrariétés*, and other islands of the eastern part; in a word, he followed and discovered 140 leagues of unknown coasts, of which he has given us a chart, and a collection of 14 views. What then has Mr. Shortland done to efface the discoveries of the French? Nineteen years later, with favourable winds, he, in eight days, sailed along the southern coasts of the same lands, whose northern coasts *Surville* had discovered while he was struggling three weeks against contrary winds; and he has passed through a strait which M. de Bougainville had discovered, and sailed through, 20 years before him. We do not wish to lower Mr. Shortland’s merit; it is unfortunate for the progress of discoveries, that when he fell in with the *Archipelago of the Arfacides*, he knew neither M. de Bougainville’s Voyage, which appeared in 1771, or that of *Surville*, which was published in 1783. But the person who drew up his account, doubtless, knew them, or ought to have known them, since he allowed himself to judge of them:

them: he ought to have known at least what had been published of SHORTLAND them in England; and he must be as unable to justify what he has said as what he has omitted. It is laudable to seek to exalt our own countrymen, but justice is the first duty; and the unalterable rights of truth can neither be misunderstood or neglected by a fair dealing nation, which, without doubt, would not think any thing an addition to its glory, that was derived from a little act of usurpation*.

1788.

We cannot here omit to mention, that the *Straits of Bougainville*, and the *Lands discovered by Surville*, had long been known in England; and it is matter of some astonishment, that such a seaman as Mr. Shortland, employed in great navigations, and, by his consummate experience, called to the command of an important convoy, should have been, perhaps, the only person who was not informed of them.

If we cast our eyes upon the general chart of the South Sea, in the first volume of Hawkesworth's Voyages, we there see (to the west of Gower and Carteret's Islands) *Bougainville's Strait*, represented in small, exactly as it appears on the great chart of the French navigator, and placed at its true latitude, $6^{\circ} \frac{1}{4}$ S. and in 205° West, or 155° East from Greenwich, differing only one degree and a half from the longitude assigned by Mr. Shortland in his table of positions, and only one degree from that which we conceive to be its true place.

* The person here alluded to has seen this note, and declares that he had not the smallest design to be unjust; but confesses that his information was deficient.

SHORTLAND

1788.

A more recent English chart, in the third voyage of Capt. Cook, gives Bougainville's Strait the same position as the foregoing; and the form of the lands is better given, for the Isles of *Bougainville* and of *Bouca* are expressed, and *Choiseul Bay* is named.

In the account of his second voyage, published in 1777, Captain Cook had given a sketch of Surville's voyage and discoveries, (Vol. II. p. 267.)

Finally, in 1782, Mr. Alexander Dalrymple composed a memoir on the passages to and from China, for the use of the secret committee of the English East-India Company [A]; and this memoir was printed and published in London in March 1785. We read there, p. 6, "the passage between New Holland and New Zealand is branched out into several, by the clusters of islands from the Tropic to New Guinea. First, between New Holland and New Caledonia, passed by Surville, 1769; this again branching into two: Bougainville's Strait, between New Guinea on the west, and Guadalcanal on the east; and Surville's Passage to the eastward of Guadalcanal, &c."

Mr. Dalrymple enters into a considerable detail on Surville's discovery, *ibid.* page 27.

"It might sometimes be expedient for ships from China to come round Cape Horne, instead of coming by the Cape of Good Hope.

[A] *Memoir concerning the Passages to and from China*, by Alexander Dalrymple, June, 1782. It was not published till March 1785.

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The only example I know of this voyage was the St. John-Baptist, ^{SHORTLAND} 1769, commanded by the Chevalier Surville. They left the Bashees ^{1788.} the 24th of August; saw no land till the 7th of October, when they fell in with the coast of Guadalcanal, in about 7° S. latitude. They coasted this land till the 7th of November, when they left it about the latitude of 12° S. From hence they went to the westward of New Caledonia, and made no land till they saw New-Zealand on the 12th of December. They left New Zealand on the 1st of January, 1770, &c."

This memoir by Mr. Dalrymple, is accompanied with a chart, of which a fragment is given in our Plate VIII. In the original, the lower plan is engraved upon a folding paper, and by laying one over the other, it may be seen what changes should be made in Mr. Dalrymple's system concerning Solomon's Islands, on account of the discoveries of Bougainville and Surville. We read there, as in our copy from it, *Bougainville's Strait, Port Praslin; Louisiade, and Cape Deliverance*. A real man of letters earnestly seizes the truth as soon as it is offered to him; and an impartial writer is eager to bestow the honour of a discovery upon him to whom it justly belongs, *Tros Rutulusve fuat.*

After all that we have read above, how could Mr. Shortland fail to be assured that his *New Georgia* was the Archipelago discovered by Surville, and his *Shortland's Strait*, the Strait of Bougainville? Men of the greatest merit sometimes have fits of absence and forgetfulness that are inconceivable.

NOTE

SHORTLAND

NOTE III. PAGE 197.

1788.

WE cannot but greatly regret, that the *beautiful* delineation of the younger Mr. Shortland was not multiplied by means of engraving; for we cannot suppose that commendation to be applied to the Chart annexed to his father's Voyage, which presents a simple line of coast, rather rudely traced, where nothing is given but the names assigned to a few capes, seen for the most part either at a distance or at night.

NOTE IV. PAGE 197.

MR. SHORTLAND seems to have supposed, that his Cape Sidney, near which he first approached the land, was the most eastern point of the lands which he fell in with; but we cannot agree with him. As his Cape Sidney is but in $10^{\circ} 48'$ of S. latitude, he could not have seen the eastern extremity of the land; for Surville discovered, and coasted by a chain of land between 15 or 18 leagues in extent, the whole of which is south of the latitude of Cape Sidney; and its eastern point, Deliverance Islands, beyond 11° degrees S. latitude. It would be dangerous that Mr. Shortland's opinion should prevail; for if, as is probable, this Archipelago extends about a degree and a half to the east of Cape Sidney, the vessels which should endeavour to fall in with these lands from the south, would find themselves entangled among the islands of the eastern part, and might be obliged by the season to beat up against the wind, in order to get to the east of Deliverance Islands, or to coast the whole way from the S. S. E. to the N. N. W. as Mr. Shortland did, to find Bougainville's Strait. We would therefore recommend to the vessels going from Botany Bay or Port Jackson to China, to go in sight of New Caledonia; and then

then direct their course in such a manner, that on arriving at 12° S. SHORTLAND latitude, they may be between 161 and 162 degrees of longitude E. 1788. from Paris, or about 164° from Greenwich: unless, according to the winds they should meet with in their passage, they should find it preferable to steer for *Cape Deliverance* of Louisiade, and then pass through Bougainville's Strait.

NOTE V. PAGE 198.

LORD ANSON's island, the north part of which was seen at a distance by Captain Carteret, is the same as Bougainville's *Bouca*: and there is no more land between this island and the south point, or *Cape St. George*, of New Ireland; but more is seen to the northward in passing from the one to the other.

NOTE VI. PAGE 198.

WE find but one chart of New Georgia in the account of Mr. Shortland's Voyage. The Relator, in speaking of more charts "*the charts here given of these discoveries*," doubtless includes the general chart, on which Mr. Shortland's course from Port Jackson to Batavia is traced.

NOTE VII. PAGE 198.

WE do not agree with Mr. Shortland in thinking, that observations of the distance of the moon from the sun, made at two points very little differing in longitude, are sufficient to determine the difference of the meridian exactly; for as the two results may be affected by a contrary error of $\frac{1}{4}$ of a degree each, the sum of the errors may produce one of a degree and a half in the difference of the meridians

SHORTLAND proposed to be determined. Single observations of this kind can only be usefully employed when, in order to bring a vessel to land on a point of known longitude, after a long passage, it is required to ascertain her own longitude, for the sake of determining, with tolerable exactness, how nearly she has approached to the land she seeks.

1788.

When we fix the limits of the error to be apprehended in such an observation, at $\frac{1}{4}$ of a degree, it is supposed that the instrument used is a reflecting octant or sextant, for the error may be reduced, even at sea, to about half a degree, if the distances be measured by M. le Chev. de Borda's circle of reflection; and if the observations are made at land, and are numerous, a very great precision may be attained. The ingenious theory of the circle of reflection, an instrument so highly valuable to navigators, gives it a degree of exactness much superior to that of octants and sextants, of a radius five or six times as great. (See *Description et Usage du CERCLE DE REFLECTION, avec différentes Méthodes pour calculer les Observations nautiques, par LE CHEVALIER DE BORDA, Capitaine de Vaisseau, Chef de Division, et Membre des Académies Royales des Sciences et de Marine. Paris, Didot l'aîné, 1787.*)

REMARKS,

R E M A R K S,

On the VOYAGES made towards the South-East of
NEW GUINEA.

THE situation of the Spanish establishments, extended along the western coasts of America, presented every advantage which could invite their navigators to seek discoveries in the vast ocean between that country and Asia. From the close of the 16th century, the Viceroy of New Spain, Mexico, and Peru, encouraged these expeditions: and could the course of these brave adventurers, who went intrepidly to meet the dangers of an unknown navigation, have been enlightened by the torch of Science, the whole world would have derived advantage from their labours. But the efforts of their courage have immortalized their names, without affording any benefit to mankind: their discoveries, hardly announced, would have remained enveloped in the darkness that surrounded them, had not modern navigators, as bold as they, more enlightened, and often assisted by good fortune, discovered the same islands and the same Archipelagos: these had, indeed, been taken possession of with solemnity by the first discoverers, in the name of their sovereign; but since that time had escaped the grasp of their conquerors, and seemed even to have disappeared from the surface of the globe.

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Among

Among the ancient discoveries, the loss of which deserved regret, Mendana's Archipelago of *Solomon's Islands*, and that of Quiros, known by the name of *Tierra Austral del Espiritu Santo*, held the foremost rank. Their known or imagined extent, the idea the Spaniards had given of their riches, their productions, and inhabitants, though suspected of exaggeration, made it equally desirable to the philosopher, the merchant, the naturalist, the geographer, and the monarch, that a fortunate chance should bring them again to knowledge. The great voyages which within these thirty years have been extremely multiplied, have at length restored to the Europeans, those lands which had been lost in the vastness of the ocean. The new discovery of these two Archipelagos is owing to French navigators; to those of England we are obliged for having them pursued and completed: we owe, moreover, to the latter, the re-discovery of Mendana's Isles of *Santa-Cruz* in the same seas, which had been first seen in 1595; and to the immortal Cook, the discovery of *New Caledonia*, the very existence of which was not suspected before his time.

We will here abandon the chronological order to which we conceived ourselves confined, in the sketches of the different voyages which, in earlier or later times, had furnished us with knowledge of the various Archipelagos situated to the S.E. of New Guinea: and by bringing together the accounts of the navigators who have visited the same countries successively, we will prove their identity, and refer to each of those who have contributed to give us that knowledge, the share of the discovery to which they are entitled.

§ I.

The Islands of Solomon, discovered by Mendana in 1567, by Carteret in 1767, by Bougainville in 1768, by Surville in 1769, by Shortland in 1788.

I. *The Discoveries of the four Navigators of the present Century belong to the same Archipelago. Identity of some Parts of their Discoveries.*

IN 1785, when the Chart containing the Equatorial Zone of the Great Pacific Ocean, (of which our Chart, N° I. exhibits a fragment on the same scale), was drawn up for the expedition of M. de la Pérouse, the latitude and longitude of *Choiseul Bay* were laid down from the Charts which accompany M. de Bougainville's Journal. To place Surville's *Port Praslin* the position of it given by that navigator was corrected; and it was fixed, by approximation, from the time and way that he had taken from that place to *New Zealand*, the longitude of which had been determined by Captain Cook's observations. His *île Inattendue* was then placed from the difference of its parallel and meridian with respect to Port Praslin; and when it was required to insert the *Gower's Island* of Carteret, from the determinations given by him, its position turned out to be the very same as that of *Inattendue*. Another proof of the identity of the two islands came out in comparing the descriptions given by the two navigators. Carteret says, that Gower's Island is

low and flat, covered every where with trees, the greater part of which are cocoa-nut palms: Surville says, that *Inattendue* presents some eminences on its western part; but that the rest is flat ground, and entirely covered with trees.

By comparing next the situation of Gower's Island, and its distance from another to which Carteret has given his own name, with the situation and distance of *Inattendue*, with respect to a high land or isle put opposite to it on Surville's Chart [B], it will appear equally certain, that Carteret's Island, and the high land opposite to *Inattendue*, are the same.

It may appear extraordinary at first sight, that Captain Carteret, who passed to the south of Gower's Island, should not have perceived the main lands which Surville discovered in succession, to the south-east of points which were common to the two tracks: and that on all this coast, he should have seen only the islands Carteret and Simpson. But our astonishment ceases, when we read in the Journal of the English Navigator, that, on Aug. 20, he discovered a small low island; but that it was not till the evening of the same day, that he found himself close upon it. Carteret was proceeding from the east [c]; and it is not surprising that he should have missed seeing a

[B] We see in Surville's Journal, that when his *île Inattendue* bore S. S. E. 5° S. distant five or six leagues, he judged it to be itself at the distance of nine or ten leagues from the high land, which, says he, appears to be also an island. See p. 146.

[c] In his table of latitudes and longitudes we see, that on the 20th and 21st he had not changed his latitude.

coast

coast which goes off to the south-east, and might be enveloped in mist. What even proves that the coast must have been foggy is, that on the same day, 20th, when he came near enough to Gower's Island to assure himself, by sounding, that there was no anchorage, and to communicate with the Indians, he saw nothing of Carteret's Island, which yet, according to his report, is not more than ten or eleven leagues south of it; and, besides, is elevated and of a fine appearance: his sight, therefore, must have been intercepted by fog. It was not till day-break, on the 21st, when the current had carried him southward during the night, that he discovered Carteret's Island directly to windward. In this position, that is, to the north-west of Carteret's Island, he perceived no other land; for we see, that after this island on the west, follows a space of fifteen leagues, where Surville saw no land. Carteret could do no more than look at the island to which he gave his name; and not being able to land on account of the wind, he bore back towards Gower's Island; and then standing off to north-west, he was quickly out of distance for seeing any part of the coast of the Arfacides.

From these observations, from the identity of position of the two small islands, and the description given of them by each navigator, as well as from the identity of situation, and equality of distance of the smaller island with respect to the large one, it seems to us demonstrated, that *Gower's Island* is the same as *Inattendue*; and that Carteret's Island is the high land, appearing like an island, which Surville computed to be nine or ten leagues to the south of *Inattendue*. It is not surprising that Surville, situated five or six leagues to the north of the latter, could not exactly estimate its distance from the great island, which

which Carteret, who passed between them, reckons ten or eleven leagues; it is more extraordinary that their computations differ so little. If we compare the Plan which the English Navigator has given us of the two islands, (Plate III.) with the corresponding portion of Surville's Chart, we shall be still more convinced of the identity of the points discerned by the two Navigators.

Surville did not touch at *Inattendue*, nor had any intercourse with the natives; Captain Carteret found many canoes there, in which were a considerable number of Indians; but he supposes that they belonged to Carteret's Island, and had come to Gower's only for the sake of fishing. He sent a boat to land; and the natives, who the day before had trafficked with his people amicably, were now desirous to massacre them; in which conduct we see the characteristic perfidy of the inhabitants of the *Arfacides*. He seized their canoes, and his description of them shows that they are altogether similar to those of Port Praslin: the arms of the savages who belonged to them were also the same. Carteret says he conjectured, from some signs made by these islanders when he showed them the English musquets, that they were not totally ignorant of the use of fire-arms. As we know of no person after Mendana who touched at these islands, except Carteret, and we shall prove that they are really a part of Solomon's Isles, we must believe that the tradition of the arrival of the Spaniards, and of the effect of the European arms, has been preserved among these people for two hundred years. If we reject this opinion, it may be supposed, that in some Voyage more recent than that of Mendana, and unknown to us, a galleon had put in at one of these islands, and made the inhabitants feel the superiority of our arms.

II. *Identity of Bougainville's Strait, and that of Shortland.*

The differences of latitude and longitude between Bougainville's Choiseul Bay, and Surville's Port Praslin, deduced from the tracks of these two Navigators, indicated sufficiently, that these two ports belong to the same country: and, from this indication, when the Chart was formed, of which our N° I. is a fragment, that part of Bougainville's Discoveries, which he called *the Islands of Louisiade*, was, without hesitation, adapted to those of Surville. (See Plate II.) The Recognition made by Mr. Shortland in 1788, of the southern coasts of the Archipelago of the Arfacides, has further confirmed this arrangement. The English Navigator having passed the same Strait which Bougainville discovered in 1768, we have a common point to which we may refer Surville's discovery, and the subsequent visit of Shortland; and, therefore, from three separate charts, representing the lands observed by each of the three Navigators, we have composed and drawn up the general chart of the Archipelago of the Arfacides [D]. (Plate III.)

It appears upon this chart that Mr. Shortland, approaching the land five or six leagues west of his Cape Sidney, could not see the most easterly islands which terminate M. Surville's discoveries, and the Archipelago of the Arfacides, on this side. He coasted along all the

[D] In Chart III. all the discoveries in this part were regulated provisionally, according to the results of Mr. Shortland's Lunar Observations; but we thought it right to refer them finally, by means of M. de Bougainville's direct track, to the longitude of the port of Cape St. George in New Ireland, which was determined from an eclipse of the sun. See Chart VIII.

southern

southern side and traced it, except in some places where he lost sight of land, which may be either deep gulfs, or passages between the islands. He came at last to a strait, through which he passed, and came into an open sea. If we compare the latitude and longitude of this strait given by him, with that of the passage discovered in 1768 by M. de Bougainville, we cannot doubt that they are the same: which assurance is confirmed by the inspection of the charts, though they present some considerable differences, which can be attributed only to the impossibility there was, that Mr. Shortland should accurately determine the positions and relative distances of the points on each side of a passage, the entrance of which he did not discover till the evening, and which he passed through in the night. We cannot refuse our confidence to M. de Bougainville's chart, as he passed very close to the whole eastern coast, took the soundings of a port in it, sailed through the strait by day, and afterwards coasted along the north-west shore within a small distance. If we lay Mr. Shortland's strait upon M. de Bougainville's, we shall see that the line of the former cannot be exact: for 1st. from the form and position of the western coast, as given by him, M. de Bougainville must have sailed over the land on the north-west side. 2dly. By casting our eyes upon the plan of Choiseul Bay, (Plate IV.) where the most western point of land, in the strait, corresponds with Shortland's Cape Alexander, we perceive that the part named by him Wallis's Island, is not an island, but a peninsula, contained between Bougainville's *Warrior's Creek*, or river, and a small gulf situated further to the north. 3dly. We see also (Plate III.) that Shortland's Cape le Cras, corresponds with Bougainville's Cape l'Averdi; and that this English Navigator did

did not perceive the island that the French named Bouca, which is Carteret's *Anson's Island*.

We remark in reading the English journal, that, on the 8th of August, while he was passing the strait, Mr. Shortland plainly perceived *the ripple of a strong current*. M. de Bougainville had made the same observation 20 years before, and says, that "*a very strong current, in the direction of due W. N. W. forms a race in the middle of this passage which crosses it, and makes the sea rise and fall as if there were rocks just beneath the surface of the water.*" Is this violent current continual in Bougainville's strait, or is it the effect of a flood or ebb tide? and did the two navigators happen to fall in with it at the same period, the same hour of tide? however this may be, this remark made by both would furnish an additional proof, if it were wanted, that Mr. Shortland passed (*without knowing it*) through Bougainville's strait. It appears perfectly natural, that being persuaded he had made a discovery, and flattered at having done so, he should have given his name to the strait; but could he be uninformed, after his return to England, that this passage had been known for twenty years? All the English navy could have told him so; and we must feel astonished that he was not solicitous to efface his own name from his chart and journal, and restore that of the French navigator, who first made known this strait to all the sailors of Europe. See above, Note II. p. 202.

§ II.

Of the Situation of Solomon's Islands, as it may be concluded from the Spanish Narratives.

MENDANA discovered the Islands of Solomon in 1567; he fought in vain to find them again in 1595; and Quiros was not more successful in 1606. The uncertainty of their true situation has given occasion to all the changes which geographers have made them undergo. It would be superfluous, without doubt, to expose in this place the variations they have undergone, and to discuss each of them particularly; we will confine ourselves to the examination of Mr. Dalrymple's chart, given by him in his *Historical Collection*, &c. (Page 16 of the *Data*) [E].

This learned navigator was seduced by the conformity which he thought he had discovered between *Solomon's Islands*, as represented in a map of J. Theodore de Bry [F], and *New Britain*, as seen by Dampier, and figured in the chart of his voyage along the coasts of

[E] See Plate X. The chart B represents Solomon's Islands according to Mr. Dalrymple's system.

[F] See De Bry's Collection, known in France by the name of *The Great and Small Voyages*. The chart in question is, in the copy we have, in the volume entitled *Americæ pars sexta* M.D.XCVI. in the volume *Americæ pars decima* M.DC.XIX. and elsewhere. The chart is dated 1596. See Plate X. Chart C.

New Guinea [G]. He endeavoured to apply to the space occupied by New Britain, the description given us by Herrera of Solomon's Islands; and he rejected, with reason, the chart inserted in the work of that historian, which is not at all conformable to his description. The system offered by Mr. Dalrymple had, above others, the advantage of agreeing in one point with the ancient narratives, which all placed the islands of Solomon in the neighbourhood of New Guinea, while some geographers removed them to the distance of five or six hundred leagues eastward; and others, to cut off all difficulty, denied their existence, and had effaced them from their charts.

But, by carrying the isles of Solomon near New Guinea, into the place of New Britain, Mr. Dalrymple placed them between $4^{\circ}\frac{1}{2}$, and 7° of south latitude. These latitudes are, in our opinion, inadmissible; they differ too much from all that is said upon the subject by the historians; and if we can expect from the early accounts any geographical indications at all approaching to the truth, it is solely in those respecting the latitudes, which can never be erroneous to the amount of a degree, setting aside faults of the copy or press: now all the accounts conspire to place Solomon's Islands much further to the south of the equator than the situation assigned by Mr. Dalrymple. We will report the different authorities on which this assertion is founded.

[G] *Dampier's Voyages, &c.* A continuation of a Voyage to New Holland, in the year 1699, &c. See Plate X. Chart A.

1. According to the narrative of *Figueroa*, the brigantine fitted out by Mendana, which made the tour of the island *Ysabel* while the fleet lay at anchor in the harbour of Estrella, took her course at first to the south-east, following the line of the coast, and discovered islands in 8° , 9° , $9^{\circ}\frac{1}{2}$, and $9^{\circ}\frac{3}{4}$: then, coasting along the southern side, she returned to $7^{\circ}\frac{1}{2}$; at this point she doubled the western point of the island, and rejoined the fleet in Port Estrella. Mendana then set sail to view the islands discovered by the brigantine in person, and went as far as the harbour of the island *San-Christoval*, situated in 11° of latitude. Thus, according to the account of *Figueroa*, these islands extend from $7^{\circ}\frac{1}{2}$ to 11° of south latitude.

2. *Fernan Quiros*, who had been Mendana's first pilot in his second voyage, in 1595, and who, doubtless, must frequently have heard his commander speak of the Islands of Solomon, the declared object of his second voyage, says, in a memoir presented by him to Philip III. of Spain, some years after, that the opinion of Mendana was, that these islands are situated between the 8th and 12th parallels, and fifteen hundred leagues from Lima [H].

3. Towards the end of this same voyage of 1595, after the death of Mendana, when his widow *Dona Ysabel*, on taking command of the fleet, consulted the pilots of whom *Quiros* was the chief, concerning the proper course for finding the island *San-Christoval*, it was

[H] *Echos de Don Garcia Hurtado de Mendoza, quarto Marques de Canete, &c. Per Figueroa. P. 287.*

unanimously

unanimously decided that it should be fought in the parallel of 11 degrees [I].

4. *Lopes Vas*, a Portuguese, who, in 1586, was taken by the English captain Witherington in the river of la Plata, had written a history of America, which fell into the captor's hands, and of which translations have been published in English. Though he is very exaggerated and very inaccurate in his description of Solomon's Islands, yet his report, as coming from a contemporary author who had been nearly on the spot, may be of some weight when he speaks of the situation of those islands: he says that the island Yfabel was discovered in 11° of south latitude [K].

5. *Alonso d'Ovaglie*, in his history of Chili [L], says, that the isles of Solomon are situated West of Peru, at the distance of 7500 miles [M], and that they extend from the 8th to the 12th parallel.

6. *Acosta* [N], who has spoken of these islands, says nothing of their latitude, but he reports that Mendana, setting out from the

[I] Ibid. p. 268. See also above, p. 26.

[K] See *Purchas's Pilgrimes*, Part IV. B. VII. Ch. XI. p. 1447. *Guadalcanar, &c.*

[L] *Historica Relation del Regno di Cile, &c. da Alonso d'Ovaglie, &c. in Roma, appresso Franc. Cavalli M.DC.XLVI. Folio.*

[M] These are Italian miles, of 60 to a degree, 7500 of which are equal to 2500 French marine leagues of 20 to a degree, or 2187 Spanish leagues of 17½ to a degree.

[N] *Historia natural y moral de las Indias, &c. Por el Padre Joseph de Acosta, &c. En Sevilla, en casa de Juan de Léon. Anno de 1590. 8vo.*

coast of Peru, and directing his course westward, after a navigation of three months, had discovered the islands to which he gave the name of Solomon's Islands; and that they are numerous, and of great extent. It is, he adds, a well-founded opinion that they are near New Guinea, or at least not far distant from some great land. Acosta wrote but a few years after the discovery of these islands.

7. Lastly, *Herrera*, who has described the islands of Solomon, places them between the 7th and 12th degrees of latitude, fifteen hundred leagues from Lima, and the island Yfabel in particular, between eight and nine degrees. It is presumed, says he further, and the varieties of species among the inhabitants seem to confirm it, that these islands are contiguous to New Guinea, whence the inhabitants have had communication with those of the Spice Islands [o].

Nothing less than authorities so numerous and so decisive could have outweighed in our mind the opinion of Mr. Dalrymple. We think that, by the unanimous agreement of the historians who wrote very soon after the discovery, we must not look for the isles of Solomon, except between the 7th or 8th, and 11th or 12th parallels. We will even add, that the original chart of de Bry, on which the learned Englishman founded his system, makes the 10th parallel pass only a little to the south of the island Yfabel. (See the fragment of this chart, Plate X. Chart C.)

The parallels between which these islands must be sought being thus fixed, it is easy to prove that they should not be 12 degrees east

[o] *Descripcion de las Indias orientales*, p. 59, and in the extract given above, p. 18.
from

from New Guinea; and consequently, that the geographers who removed them 6 or 700 leagues east of that land, have committed a monstrous error. It is sufficient for this purpose to examine the tracks of those navigators, who in traversing the Great Ocean from east to west, have constantly kept between the parallels wherein they must have met with these islands, and yet have not reached them, because they have not pushed their voyages far enough to the west.

Mendana, in 1595, after having gone through nearly 70 degrees of longitude, or nearly 1400 leagues of 20 to a degree, between the 9th and 11th parallels, came within 12 degrees from the east of New Guinea, without falling in with the islands of Solomon.

Quiros, in 1606, navigating in the same direction, having gone 35 degrees, or nearly 700 leagues, between the 10th and 11th parallels, checked his course 14 degrees east from New Guinea, without having seen the islands which he sought.

Lastly, *Captain Carteret*, in 1767, after having kept on for the space of 33 degrees, or nearly 660 leagues, between the 9th and 11th degrees of latitude, arrived at the island *Santa-Cruz* of *Mendana* (Queen Charlotte's Islands) 12 degrees east from New Guinea, without having seen the islands of Solomon.

It is proved then that these islands are not so far to the east of New Guinea as 12 degrees; and we have good reason to think that they occupy a space comprised between the 7th and 11th parallels of south latitude, and between the 3d and 10th degree of longitude,
east

east of that part of New Guinea which is at present called New Ireland.

We might confirm the limits between which we have fixed the situation of Solomon's Islands, both by the calculation of Mendana's course from the coasts of Peru, and by the direction of it to the time when he fell in with these islands, and we might support our opinion by all the proofs which the different narratives of his voyage supply: but, for the confirmation of our system, we refer the reader to the memoir, full of learned researches, which *M. Buache*, first geographer to the king, and hydrographer to the navy, presented in 1781 to the Royal Academy of Sciences, where he was afterwards admitted a member. The first notices of M. de Bougainville's discovery, and that of Surville, to the south-east of New Ireland, were hardly obtained, when the sagacity of this skilful geographer recognized in these new lands those Islands of Solomon, which had been sought for in vain from the period of their first discovery. He lost no time in preparing a systematical chart, in which he applied the imperfect and often contradictory descriptions of the Islands of Solomon by Figueroa and Herrera, to Surville's Lands of the Arfacides: and though he presented this chart only as a sketch of the general masses, wherein exactness in the details was not to be expected, it may be said, that from that moment the identity of the *Islands of Solomon*, and those of the *Arfacides*, appeared demonstrated, in the eyes of all impartial men who do not set the resistance of prejudice, or the obstacle of jealousy, in opposition to the success of every new idea.

M. Buache has kindly permitted us to subjoin to this work, an extract of his memoir, which he has furnished; to which we will add a reduced copy of the charts by which it was accompanied.

We are persuaded that if Mr. Dalrymple had known of the journals and charts of MM. de Bougainville and Surville, when he published his System on the Islands of Solomon, in 1770, and if the track of Carteret between New Britain and New Ireland could have been known to him, he would no longer have attended to the seducing conformity between de Bry's *Isles of Solomon* and Dampier's *New Britain*; that he would have carried these islands into more southern latitudes, and detached them from New Guinea to extend them for a few degrees towards the east; and lastly, that he would completely have recognized the Islands of Solomon in those of the Arfacides.

The review of the southern coasts of this Archipelago by Mr. Shortland, in 1788, has thrown some new lights upon the discoveries of Bougainville and Surville; and by combining these data, we have formed a total of land, which perhaps is not exactly conformable to nature, but which, we hope, may be sufficiently so to be consulted without danger by the navigators who may be desirous further to explore this Archipelago.

Having thus collected and digested together whatever the modern navigators have seen, our next endeavour was to apply to these fragments of land, to these islands of which seldom more than one side

was discovered, the description of Solomon's Islands in Mendana's Journal, as delivered by Figueroa; and we have formed a systematical chart of the whole in N° XI. We are far from imagining that the minute parts of this chart can be exact; those of Surville and Shortland, here united, were drawn merely from simple bearings, taken with the compass as the vessels sailed along; and this operation can give no more than the relative situation of the masses of land. We shall see, nevertheless, that, by tracing exactly in our chart the route of the brigantine fitted out by Mendana, and that of his own ships, as far as it can be deduced from the irregular account of Figueroa; by employing the latitudes of that historian; and by using the distances which he reports, we place all the islands named by him in the relative situations which he assigned to them; we fit them in, if we may so express it, with the discoveries of our own times; and at the same time make no alteration in the parts described by modern navigators. Should this agreement be thought an effect of mere chance, it must be allowed that at least it supports itself with great consistency; and those who are not systematically devoted to incredulity will, by several characteristic marks, discover the Archipelago of Solomon's Islands in that of the Arfacides.

In drawing up our chart, N° XI. we began by making an exact copy of our chart N° VIII. in which appears the re-union of the partial discoveries made by MM. Carteret, Bougainville, Surville, and Shortland: this part is distinguished by a shaded line, and what we have added, to refer Mendana's discovery to it, as far as we could collect it from the recital of Figueroa, is expressed by a dotted line. It is necessary, in reading what follows, to have the Charts III. and XI.

XI. before us, and at the same time to consult the Plates V. and VI. of the views taken by Surville on the north and east coast of his Archipelago of the Arfacides.

§ III.

Application of Figueroa's Description of the Islands of Solomon, to the Archipelago of the Arfacides discovered by modern Navigators; with the Proof of their Identity.

WE have seen in the extract from the voyage of the Spanish frigate *la Princesa* [P], that admitting the shoal called *Roncador* to be, as is most probable, Mendana's *los Baxos de la Candelaria* [Q], the south-east part of this great bank must be situated in $6^{\circ}\frac{1}{2}$ of south latitude, and $157^{\circ}\frac{1}{3}$ of longitude east from Paris. The narrative of Figueroa makes no mention of the distance between this shoal and the port of *Estrella*, in the island of *Santa-Ysabel*, nor of their relative situation, but it furnishes, as we shall see, the means of calculating the latitude of that harbour, which is about one degree more south than the lower part of the shoal.

We suppose that Port Estrella may occupy the space situated three quarters of a degree to the east of Port Praslin, in which Surville could not perceive any land; and it will be shown in the sequel that this supposition is not devoid of foundation.

[P] See above, p. 179.

[Q] Ibid. p. 181.

Proceeding from this point, in our chart of Surville's discoveries, we will follow the course of the brigantine fitted out by Mendana from port Estrella, under the command of his colonel Pedro Ortega, and under the conduct of his first pilot Hernan Gallego, according to the account of Figueroa [R].

“ Ortega took his course to the south-east, following the direction of the coast; and at eight degrees of latitude he found two small islands covered with large palm-trees. These were not more than six leagues from port Estrella: he afterwards fell in with several more islands in the same track.”

According to Surville's chart, the tendency of the coast in this part is north-west and south-east; it presents several islands in eight degrees of latitude, at the distance of six leagues from the harbour; and, turning to the eighth view, that of the 25th of October, at six P. M. (Plate VI.) we perceive that one of these islands was remarked as covered with large trees; many other islands are also distinguishable in the same track.

Since those islands which are in eight degrees of latitude are, as Figueroa relates, at the distance of six Spanish leagues south-east from port Estrella, that harbour would be, according to that calculation, in $7^{\circ}\frac{1}{4}$; the place assigned to it upon our chart is about $7^{\circ}\frac{2}{3}$.

“ He saw a great bay (*grande Bahia*) with eight small islands, all inhabited by men armed with wooden swords, bows, and arrows.

[R] See above, p. 7, &c. See also Charts III. and XI.

At

At 14 leagues due east from this bay is a great island, called by the natives *Malaita*; between are two islets, each of them close to a head-land, in eight degrees of latitude: the great island was called *Isla de Ramos*."

We place this great bay in the second void space, where neither Carteret nor Surville could see land; and the island *Malaita*, or *de Ramos*, will be *Carteret's Island* at the distance of 14 leagues, in a due east direction from the bay. In the plan given by the English navigator of the island which he named after himself, we see some islets near the head-lands on its north coast, which may be those referred to by Figueroa.

As to the latitude, that of the north-west point of *Malaita*, according to Carteret, is eight degrees, 25 or 26 minutes; it ought to be only eight degrees according to the Spanish narrative, but we know that we must not subject the latitudes of the early navigators to so close an examination.

"Proceeding onward to the coast of *St. Ysabel*, they came to a port and a cape, in nine degrees of latitude, and about 14 leagues from the *Ensenada* (the gulf). This cape was named *Cabo Prieto*."

We conceive that by the word *Ensenada*, which Figueroa here employs instead of *Bahia*, he intended to describe the great Gulf, or the whole recess which ends on the eastern side, at the island of *Ramos*; and that it is to this island that he refers the distance of 14 leagues, which fixes the position of *Cabo Prieto*. In fact, if

it should be supposed that by *Ensenada* he meant the great bay of which he had spoken, his account would have no sense: he had said that the island of *Ramos*, or *Malaita*, was 14 leagues from this bay; and as after quitting that island, the brigantine coasted onward before she reached Cape *Prieto*, this cape cannot be equally at the distance of 14 leagues from the same bay. We must therefore understand that it is from *Malaita*, or the eastern extremity of the gulf, that the 14 leagues should be counted.

We place Black Cape, or *Cabo Prieto*, at the nameless cape which Surville described to the north-west of his *île des Contrariétés* (Chart III.) This cape is situated on our charts at nearly nine degrees of latitude, and about 14 leagues distant from the eastern extremity of the *Ensenada*.

“Towards the south-east of *Cabo Prieto*, and at the distance of nine leagues, several isles appeared; they touched at the first, which may be about five leagues in circumference, and is surrounded with reefs. It was named *la Galera*,”

“A league from this is another isle, 12 leagues in extent, due south-east from Cape *Prieto*, at the distance of nine leagues from that cape, and in $9^{\circ}\frac{1}{2}$ of latitude: it was named *Buena Vista*, and round it were seen several small islands, which were inhabited. Five others form a line, extending from east to west: *Florida* of 25 leagues, in $9^{\circ}\frac{1}{2}$ of S. latitude; *San-Dimas*; *San-German*; *Guadalupe*.”

“Finally,

“ Finally, to the south-east of the five former, is found the island *Sefarga*, eight leagues round, distant five leagues due south-east from *Buena Vista*, and in $9^{\circ}\frac{1}{4}$ of latitude : it is high, and in it is observed a volcano, which sent a thick smoke incessantly.”

Surville has given us two views (IX. and X. Plate VI.) of the part of the coast between the cape which we take for *Cabo Prieto*, and the second cape, which lies to the west of his *île des Contrariétés*. We see there that he distinguishes lands at distances more or less remote ; the islands on the first line at the distance of six leagues ; and thence, as far as 12 leagues, other lands and other islands. The journal says, that in the morning of November 1, several openings were perceived on the coast in different bearings ; that this part appeared more peopled than that of Port Praslin ; that cleared grounds and plantations were distinguished ; and that the columns of smoke which arose from the interior parts, announced that the population was not confined to the sea-coast. Lastly, it was from one of those openings that the canoes came out to reconnoitre the vessel, &c. (See above, p. 150). We have therefore a good foundation for our opinion, that the lands return at this place, and that the interrupted coast, in sight of which Surville then was, is the extremity of a small Archipelago, extending from east to west. From this presumption it is that we have endeavoured on that space to distribute the islands *la Galera*, *Buena Vista*, and *Sefarga*, to the south-east of *Cabo Prieto* ; and to the west of *Buena Vista*, we have placed the four islands which extended in a line from east to west, namely, *Florida*, *San-Dimas*, *San-German*, and *Guadalupe*. (Figueroa
does

does not name the fifth island mentioned in his account, possibly he reckoned *Buena-Vista* into the number). The islands of *Buena-Vista*, *Florida*, and *Sesfarga*, will be found placed at the latitudes assigned by Figueroa; and in their relative situations, both with respect to each other and to *Cabo Pietro*. We have examined whether the *Volcano of Sesfarga* may not be the *Mount Lammas* of Shortland, but could not clear up that doubt; for we have no proof of the exact correspondence of the northern coast seen by Surville, with the southern which Shortland saw, as we have placed it in our charts: in both cases, the distances of one point from another, was only estimated by the eye, as the vessel sailed along. We have carefully referred the points on the southern coast to the western part of the lands at Choiseul Bay, by means of Shortland's Journal; but the points on the northern coast we could apply only by approximation, as Surville had no knowledge of the lands at Choiseul Bay. In disposing the two coasts, as they appear upon our charts, and preserving the positions and latitudes of Figueroa to the islands we insert, it is not possible to make the Volcano of Sesfarga coincide exactly with Mount Lammas; but it may happen, that a more exact observation on the spot, may put the identity of these two mountains out of all doubt, unless, in fact, they really are distinct.

After speaking of the island of Sesfarga, the account subjoins; "Immediately after they discovered another island of great extent, watered by a large river. The island received the name of *Guadalupe*, and the river that of *Ortega*."

From

From this indication, we have supposed *Guadalcanar* to be the great uninterrupted portion of coast which Mr. Shortland observed between his Cape Henflow and Cape Marsh. The void spaces where he discerned nothing, to the east and west of this coast, seem to indicate that it belongs to an island, and the eastern part of it should be at no great distance from *Sesarga*.

“ Quitting *Guadalcanar*, they regained *Cabo Prieto*, in order to pass round the island *Ysabel*, according to the command of Mendana. Seven leagues to the W. S. W. of the Cape, and at five leagues distant (*doubtless from Guadalcanar*, or else from the point where the brigantine then was) they discovered another island, which was named *San-Jorge*. It forms with *Ysabel* a channel to the south-east, which is six leagues long, by one broad in the western part; where is a port capable of containing a thousand vessels, having its entrance at the S. E. and its out-let to the N. W.”

It is clear, from the first part of this passage, that the Spaniards, when they discovered the islands at the south-east of *Cabo Prieto*, had visited them first; and that this course had carried them to *Guadalcanar*, whence they returned to *Cabo Prieto*, to make the tour of the island *Ysabel* southwards, as Mendana had enjoined. The rest of the passage is less intelligible; it does not appear what is meant by the channel formed between the isle of *Ysabel*, and that of *San-Jorge*. We suppose it must be the same as this great harbour which would contain 1000 vessels, for it is said of the harbour, as well as of the channel, that its entrance is to the south-east, and its outlet to the north-west. But as *Guadalcanar* is much longer

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from east to west, than *San-Jorge*, which is only six leagues in length, that island itself should form a channel with *Ysabel*, of which Figueroa makes no mention.

“ Proceeding along the coast of *Ysabel*, and after having gone forty leagues, they fell in with very extensive reefs, on which they saw a great number of Indians in canoes, fishing. Among the reefs were distinguished several small inhabited islands, and others that were unoccupied.”

Hammond's Islands, seen by Shortland, may represent these great reefs intermixed with small islands, some peopled, and others uninhabited. They are only thirty-four leagues from the point, which we suppose the western extremity of *Guadalcana*; but as the brigantine coasted along the island *Ysabel*, she might easily, by following the flexures of it, have made her course forty leagues, from one point to the other; which might yet be equivalent to no more than thirty-four in a direct line.

“ In the neighbourhood of the last point of *Santa-Ysabel* (to the west) in the latitude of $7^{\circ}\frac{1}{2}$, the brigantine found many other islands, all of which are inhabited.”

We suppose that the island *Ysabel* terminates at the opening, or break, which M. de Bougainville saw, and marked upon his chart, nearly in $7^{\circ}\frac{1}{2}$ of latitude. The divided parts to the S. S. W. of this break are, to all appearance, inhabited islands; and it is also probable, that the part between this opening and Choiseul Bay, is formed of many

other islands which are also inhabited, as a great number of canoes, carrying several Indians each, were seen by M. de Bougainville, at Choiseul Bay, and Mr. Shortland at Indian Bay.

“ The length of the island *Santa-Ysabel* is 95 leagues, its breadth 20, and its circumference above 200.”

The length of *Ysabel* measured, on our chart, from *Cabo Prieto* to the break where we suppose the island to terminate on the western side, will be found only 80 leagues: it would be 95 if we began to reckon from *Sesarga*, the easternmost point of the brigantine's discoveries. But can it be expected, that in sailing round so extensive an island, a ship under way should exactly estimate its length? This is as much as could be expected from our modern navigators, who can connect astronomical observations with the operations of trigonometry. As to the breadth of twenty leagues towards the middle of the island, it is pretty nearly what we have given it in our chart, guiding ourselves by the latitudes observed on the northern coast by Surville, and on the southern by Shortland.

“ Having doubled the island at its western extremity, the brigantine found the winds adverse to her return to *Port Estrella*. A boat sent out by Ortega, to give Mendana earlier intelligence of him, split upon a reef in coasting along; the brigantine picked up the crew as she sailed along, and at length regained the harbour.”

We see on Surville's Chart, that all the coast situated to the N. W. of his *Port Praslin*, is bordered with reefs; and the land

forms a considerable promontory to the north in this part; it may be presumed to have been hereabouts that the boat struck and was wrecked.

“ On the return of the brigantine, Mendana got his fleet ready, and passed between the reefs which form the harbour's mouth.”

Casting our eyes upon the IVth, Vth, and VIth Views of Surville, (Plate V.) we see that all the coast to the N. W. and S. E. of Port Praslin, is interspersed with small islands and islets; and the reefs which form the entrance of Port Estrella, as they present, according to the narrative, a coast of the same nature with the former, declare it not to be far distant. This conformity led us to the supposition that *Port Estrella* may be situated to the east of *Port Praslin*, in the part where Surville no longer saw the land.

“ Mendana proceeded with easterly winds, sometimes violent, and arrived at the isle of Guadalcanar. They there sought for a new port, and found one, which they named *Puerto de la Cruz*; a river near it received the name of *Gallego*.”

Thus Mendana pursued the same course that the brigantine had held; but it is probable that, without staying at the isles south-east of *Cabo-Prieto*, which Ortega had descried and visited, he proceeded directly to Guadalcanar. On examining their tracks, we are astonished that neither the brigantine, nor the fleet afterwards, should have perceived Carteret's *Gower's Island*, the *Inattendue* of Surville: at least Figueroa does not mention it; but that may probably be an omission

omission of his, which we may supply by what Herrera says, in his description of Solomon's Islands [s]. After having spoken of the islands *Santa-Catalina* and *Santa-Ana*, the most eastern of this Archipelago, he adds;

“ The small island *El nombre de Dios* (the name of God) [r], is situated at fifty leagues from the preceding, in seven degrees of latitude; and in the same sea, to the north of *Santa-Ysabel*, are found *los Baxos de la Candelaria* (Candlemas Shoals).”

Gower's Island, or *Inattendue*, is, in fact, fifty or sixty leagues from the two eastern islands, according as the measurement is made to the one or the other of them. It is true that its latitude is eight degrees; and that, according to Herrera, it ought to be only seven; but the latitudes given by this historian must be trusted only with a certain degree of caution; and there is also reason always to suspect faults of the copy or the press.

We have seen (page 181) that, admitting the *Baxos de la Candelaria* to be the *Roncador* of the Princessa, the southern part of this shoal, will be in $6^{\circ}\frac{1}{4}$ of latitude. Figueroa (p. 5) says, that *Candelaria* is in $6^{\circ}\frac{1}{4}$: but as these shoals are fifteen leagues long from S. W. to N. E. the latitudes would agree very well, if, as is probable, that of Figueroa refers to the middle of the shoal.

[s] See above, page 19.

[r] This island must not be confounded with that of *Jesus*, named on some charts *Nombre de Jesus*, which Mendana discovered seventeen days before he reached Candlemas Shoals; and not less than 160 leagues to the east of that in question. See p. 5.

“ The

"The brigantine was sent out again (from the port of *La Cruz*, where the fleet was at anchor) and at the distance of two leagues arrived again at the river Ortega (near which she had anchored when it was first discovered). She afterwards touched at several islands, and visited several rivers, which it would be too long to enumerate."

The end of this passage may explain why Herrera has transmitted the names of many islands not found in the relation of Figueroa, who thought, doubtless, that they did not deserve particular mention.

"On the 13th of June the fleet set sail again; and having beat up two leagues to the windward, to the point the brig had visited, they perceived several villages. Thence they directed their course to an island, which received the name of *San-Christoval*, and anchored there, in a harbour situated in eleven degrees of latitude; the island was narrow and mountainous."

We may conclude from the above, that *San-Christoval* is not far from *Guadalcana*; and that the harbour situated in eleven degrees of latitude, must be on its southern side. We suppose that the island may extend to the north, in the part where Surville saw no land; and that its southern extremity is the detached coast, seen by Mr. Shortland, between Cape Sidney, and Cape Phillip.

"The brigantine was dispatched a third time to extend her discoveries. She fell in with two islands divided by a channel of three leagues: the first received the name of *Santa-Catalina*; the second
that

that of *Santa-Ana*. The latter is low and of a round form ; and the eastern part affords a good harbour."

It appears to us, that the northern coasts of these two islands are those which Surville saw, bearing south of the *Three Sisters*, and expressed in his views. We can there distinguish low lands, like those of *Santa-Ana*, terminating the coast eastward. (12th and 13th Views, Plate VI.)

Figueroa makes no mention of small islands north of *Santa-Catalina* and *Santa-Ana* ; but we may discover the *Three Sisters* of Surville, in the *Three Marias*, pointed out in Herrera's description, who mentions them after *Buena-Vista*, *San-Dimas*, *La Florida*, &c. and represents them as three small islands, which look like one : *las tres Marias, unas Isletas*.

It is extraordinary that neither Figueroa, nor Herrera, has spoken of that which Surville named *île de Contrariétés*, of a very pleasing appearance, well cultivated, and well peopled ; which, with the *Three Sisters*, and another islet, forms a little Archipelago detached from the great one : it is, perhaps, one of those whose names occur only in Herrera's description ; from which their situation cannot be determined. If, after quitting *Cabo Prieto*, the brigantine, and afterwards the fleet, followed the western coast of *La Galera*, and *Buena-Vista*, they would not have seen the *île de Contrariétés* : but they should have perceived it when the fleet was seven days beating up along *San-Christoval*. It is true, that in this position it would have been to windward of the fleet, and difficult to touch at : perhaps,
also,

also, as it is only five leagues long by three broad, it did not seem to merit a particular attention.

“ Quitting the islands of *Santa-Catalina* and *Santa-Ana*, the brigantine re-joined the fleet after coasting along *San-Christoval*. The first pilot, Gallego, reported that they had not discovered any other land on this side (the east); but that, on the western side, they could not fail to meet with one of very great extent.”

Gallego's assertion was well founded, for he had sailed by the whole coast of *Ysabel*, from the south-east to the north-west; he had estimated its extent; and, at its western extremity, had perceived several more islands, which are all peopled.

“ On the report of the brigantine, the fleet prepared to sail. They were seven days beating up along the island of *San-Christoval*; and then steering northward, they directed their course for America.”

The time employed by the fleet in beating up along *San-Christoval* proves, that this island must be of considerable extent, from south to north, for they were obliged to make tacks for seven days, to get up as high as *Sefarga*: the coast then immediately turning to the north-west, the fleet found an open sea, which allowed its course to be directed to the north.

We have seen that, without waving any difficulty, without making any forced supposition, Figueroa's account of Mendana's discovery in 1567, applies, in all points, to the discovery of Surville: but

if

if it were required to apply Herrera's description of Solomon's islands to our systematic chart, no more agreement would be found between them, than between the same description and that of Figueroa, and the attempt to reconcile them would be fruitless labour. Figueroa, employed to write the History of the Marquis of *Canete*, Viceroy of Peru, drew his information from the original sources; and his account of Mendana's Voyage, imperfect as it is in many respects, contains some nautical details which invention could not supply, and which could only have been found in the Journals of the fleet. But the navigators of those times, who intrepidly sailed over unknown seas, were little qualified to give account of their discoveries: the confusion of the original notices; the errors the compiler may have committed, for want of sufficient knowledge of the subject; the omissions, transpositions, or other faults of the copies, which must have been multiplied before the work came to the press; all these causes may easily have produced alterations in the detail, yet the general matter is incontestible. The narrative of Figueroa carries with it such marks of authenticity and truth, as entitle it to a preference whenever the other historians differ from it; it is far otherwise with the account of Herrera, which seems to have been drawn up merely from some vague, unfaithful reports, and contains many manifest exaggerations. His island *Ysabel* is 150 leagues in length; and *Guadalcanar*, which he calls the largest of all the islands, should be still more: many other islands are said to be 100 leagues in circuit: he makes two different islands of *Malaita* and *de Ramos*, and gives the latter 200 leagues in circumference [w], &c. &c.—We mention these

[w] Herrera says, *the island of Ramos is 200 leagues in circumference, and near it is the island Malaita.*

manifest errors, only because most geographers, in representing the islands of Solomon, have followed this account of Herrera, which certainly they could not have understood. M. Pingré, of the Academy of Sciences, Astronomical Geographer to the Navy, was the first who traced these islands from Figueroa, and placed them at their true latitude, in the chart of the southern part of the South Sea annexed to his *Memoir for the Transit of Venus*, of June 3, 1769.

The agreement perceivable between the *Islands of Solomon* and those of the *Arfacides*, in a geographical point of view, is not the only one by which the identity of these Archipelagos may be proved. In the narration of Surville, compared with that of Mendana, we find the same people, the same perfidy, the same ferocity: their arms are alike; the bow, arrows, the sabre or sword of wood, the dart or lance: the same animals, the same trees, the same productions, re-appear; the hog, the fowl, the palm-tree, the cocoa-nuts, the almonds, &c. We remark also another particular, which must have some weight. Figueroa relates, that the inhabitants of *Port Estrella* eat a kind of root, which they call *Venaus*; and M. de Surville says, that those of Port Praslin eat a plant, which they call *Binao*. Whoever knows the Spanish language, and the difficulty of understanding a word pronounced by a savage, will perceive *Binao* and *Venaus*, or *Benaus* [x] (which are pronounced *Vénalous* or *Bénalous*) to be the

It might be conjectured from hence, that the accounts given to the Historian, all distinguished two islands: that of *Ramos* being Carteret's Island, *Malaita* might be Simpson's Island, which, in fact, is very near it; and as it is small, Herrera might not notice its extent.

[x] It is well known, that in the Spanish language the consonants v or b are employed indifferently, either in the beginning or the middle of words.

same word ; differing only from the circumstance of one being heard and written by a Frenchman, and the other by a Spaniard. We do not give this proof as decisive ; it would suffice, that the people had sprung from a common origin, to account for their employing the same word for the same purpose, especially to denote an object of the first necessity : but we think that, even without regarding this particular trait of resemblance, and only bringing together the others, the opinion of the identity of *Solomon's Islands* and those of the *Archipelago*, at first offered as an hypothesis, may appear, on examination, to be founded on a mass of proofs, facts, and reasonings ; and that merely the details require correction.

§ IV.

The Islands of SANTA-CRUZ, discovered by MENDANA in 1595, seen again in 1767, by Captain CARTERET, who gave them the Name of QUEEN CHARLOTTE'S ISLANDS.

THOUGH the French have no claim to the discovery of the islands of *Santa-Cruz*, and therefore the mention of them may seem foreign from the purpose of this work, yet, as they make a part of the long Archipelago which extends on the south-eastern side of New Guinea, we have thought that they should not be excluded, but should make a mass in the picture, which is intended to unite and display the whole knowledge communicated by ancient and modern navigators, concerning this interesting part of the globe.

The description of the islands of *Santa-Cruz*, according to the Spanish Historians, their geographical situation, the peculiarity of a volcanic island a few leagues to the north of the principal island, and that of an assemblage of small islands surrounded by a reef, on the north-east of the volcano; in a word, all that we know of them, compared with the report of Carteret, puts it beyond doubt, that, in 1767, the English navigator found again the same islands that Mendana had discovered in 1595, and where he had begun to found a colony; which was, if we may be allowed the expression, stifled in its cradle.

Mendana saw the volcano emit flames: Carteret perceived merely a smoke; but a volcano is not always in explosion, the eruptions happen only at intervals.

The island named *Keppel*, or *Swallow*, by the English navigator, and represented by him as one long and flat island, was seen by him at a distance; and Mendana deserves more confidence, as he examined the volcanic island to find an anchorage, and doubtless did not neglect to take an exact view of the other, since the Spanish account enters into some detail on this subject, and says, that it is *an assemblage of small inhabited islands surrounded by a reef*.

From the plan given by Carteret of the entire group of his *Queen Charlotte's Islands*, we perceive at the very first view, though he has not himself remarked it, that the place called by him *Trevanion's Lagoon*, where he supposes there must be excellent harbours, is actually the *Bahia Graciosa*, where Mendana began his settlement.

This

This bay, according to the Spanish narrative, is situated on the north-west part of the Great Island, and south of the volcanic isle, and is formed by a recess of the main land, covered by an island; to which, from its prodigious fertility, was given the name of *la Guerta* (the Garden). This description agrees perfectly with what appears in the English chart; and the island *la Guerta* is that which Carteret called *Tre-
vanion's*: the latitude of its north-west point, placed by him at $10^{\circ} 23'$, agrees with that of $10^{\circ} 20'$, assigned by Mendana to his bay.

We read, in the English narrative [A], that, "after doubling Cape Trevanion, the land was found to run to the south; and that they continued to proceed along the coast till they discovered the western entrance of the Lagoon, between *Tre-
vanion's* and *Lord Egmont's Island* (*la Guerta* and *Santa-Cruz*) and that these two islands seemed, in this place, to form a continued town, with innumerable inhabitants."

We have seen in Mendana's Voyage, that in this part of the island resided the chief *Malopé*; and that the population must have been considerable, since the Spaniards burnt several villages. May we not also believe, that the establishment which the natives saw these strangers make, and the view of their arts and industry, might have afforded them some lights; that they might have inherited some tools from them, some iron, &c. (small benefits to counter-balance so many evils!) that their habitants there had consequently mul-

[A] See Hawkesworth's Voyages, Vol. I. p. 580.

tiplied,

multiplied, and the Spanish Town of *Bahia Graciosa* become the capital of the island?—On reading the whole account of Carteret, whence we have given only a short extract, it will be seen, that in every part of the coast which he approached, his boats were vigorously repulsed. It would seem that the ancient inhabitants of *Santa-Cruz*, so cruelly treated by their perfidious visitors, whom they had received as friends, had bequeathed to their descendants the charge of vengeance; transmitting to them their hatred of those polished barbarians, who have so often left the great continents which they have divided among themselves, to disturb the Child of Nature in his sequestered possessions, and enrich themselves with the plunder of the world.

All that Carteret was able to discover of the island of *Santa-Cruz*, its inhabitants, and productions, agrees with what Mendana has reported of it; and this approved exactness of the ancient Navigator, wherever his account could possibly be verified, leaves us no doubt, that it is equally faithful in those points which the modern navigator had neither time nor means to examine. From the idea given by the former of the astonishing fertility of this island, and the resources of all kinds offered by it to Voyagers, we cannot but feel an infinite regret, that the Europeans should have so little understood their own interests as not to make friends of the inhabitants.

§ V.

The TIERRA AUSTRAL DEL ESPIRITU SANTO, discovered by QUIROS, in 1606; by M. DE BOUGAINVILLE in 1768, who named it the GREAT CYCLADES; and by Captain COOK, who named it the NEW HEBRIDES in 1774.

A REMARKABLE circumstance preceded the discovery made by Quiros of the *Tierra Austral del Espiritu Santo*: we have seen, (page 43) that *Tumay*, chief of the island *Taumaco*, (situated in 10° of south latitude, and 1700 Spanish leagues from Lima) had informed Quiros, that in the south there existed a great country, rich, fertile, and well peopled, the name of which was *Mallicollo*. Five days sail from *Taumaco*, this navigator discovered afterwards the island *Tucopia*, so named by its inhabitants, who in like manner informed him that he would find great countries in the south. It was in consequence of these intimations that Quiros directed his course towards this part, and fell in with the land of *Tierra Austral*. He did not discover that great country *Mallicollo*; but Capt. Cook has informed us that one of the largest islands of this same Archipelago is actually called by the inhabitants *Mallicollo*, or *Manicollo*. We cannot doubt therefore that the inhabitants of *Taumaco*, whose latitude differs six degrees from that of *Mallicollo*, and the difference of whose meridian is about four or five, knew this land, and had communication with its inhabitants. This is a very astonishing navigation for slight canoes; and this knowledge may assist us to explain
how

how the islands of the *Great Ocean*, between the equinoctial line and the southern tropic, must have been peopled each from those that are the nearest.

Eight days after quitting *Taumaco*, Quiros saw the *Tierra Austral*. *Nuestra Senora de la Luz*, the first island he discovered, is situated, according to him, in $14^{\circ}\frac{1}{2}$; and this latitude agrees with that of M. de Bougainville's *Pic de l'Etoile*. Quiros, in his description of it, differs in one point only from the French navigator: the former speaks of *an extensive and high land* [B], the latter, of *a small island rising in the form of a sugar-loaf*; but from the subsequent parts of the accounts, and the visit since made by Capt. Cook, it appears beyond a doubt that the islands are the same.

Quiros, situated to the north of *Tierra Austral*, must at first have seen it divided into two islands by the deep bay of *San-Felipe y Sant-Yago*: accordingly in this position he says, that he saw a high land to the west, which is the part of the island that is terminated on the north by the *Cape Cumberland* of Cook: another larger to the south, which is the part terminated on the north by *Cape Quiros*: lastly, another still more large, to the south-east, which is the group of islands *Aurore, des Lépreux, and Pentecôte* of M. de Bougainville; which, from the situation of Quiros, must appear to him as only one island of great extent.

[B] In the Spanish accounts, *Tierra*, (land) is applied to the smallest islands, as well as to great lands and continents; and it is used in the same manner by modern navigators, who say that they *saw land*, or *had sight of a land*, when they discover an island.

According

According to the report of Arias, (above, p. 50) the bay of *San-Felipe y Sant-Yago*, is situated in $15^{\circ} 20'$ S. latitude. We know not to what part of the bay this determination refers; but if, as is probable, it belongs to the point where the fleet of Quiros lay at anchor, which was very near the head of the bay, this latitude agrees with that determined by Capt. Cook: we see that he advanced within two miles of the head of the bay; and the point where he lay is placed on his chart in $15^{\circ} 20'$ [c].

The officers who commanded the boats which Cook sent to reconnoitre the head of the bay, reported, "that they had landed on the beach, near a fine river, or stream of fresh water, so large and deep that they judged boats might enter it at high water. They found three fathoms depth close to the beach, and fifty-five, and fifty, two cables' length off. Further out they did not found; and where the ship was (two miles from the coast) they had no soundings with 170 fathoms of line."

"I had no doubt," says Capt. Cook, (though this was not the opinion of all) "that this was the bay of *St. Philip and St. Yago*; I found general points to agree so well with Quiros's description. As to what he calls the port of *Vera Cruz*, I understand that to be the anchorage at the head of the bay, which in some places may extend further off than where our boats landed. There is nothing in his account which contradicts this supposition. It was but natural for his people to give a name to the place, independent of so

[c] *Cook's Second Voyage*, Vol. II. p. 89, &c.

large a bay, where they lay so long at anchor. A port is but a vague term, like many other in geography, and has been very often applied to places far less sheltered than this.

“ Our officers observed that grass and other plants grew on the beach close to high-water mark ; which is always a sure sign of pacific anchorage, and an undeniable proof that there never is a great surf on the shore.”

These indications of the excellence of port *Vera-Cruz* had not escaped the observing genius of Quiros. He had remarked before, that as the shore was regular, smooth, without cuts or gaps, and lined with verdure, we might presume that it is never beaten by waves : and as he saw that all the trees had their stems straight, their branches interlaced, and none of them broken, he concluded that violent winds did not penetrate to the bottom of the bay. (P. 59).

“ They judged,” says Capt. Cook, “ that the tide rose about four or five feet, and that boats and such craft might, at high water, enter the river, which seemed to be pretty deep and broad within ; so that this, probably, is one of those mentioned by Quiros ; and, if we were not deceived, we saw the other.” (These are the rivers *El-Jordan* and *San-Salvador*.)

The bay, according to Capt. Cook, has twenty leagues sea-coast ; six on the east side, two at the head, and twelve on the west side. Quiros supposed it much larger ; he gave it twenty Spanish leagues in depth. But Quiros, whether from the effect of a fervid imagination,

tion, or rather by design, always exaggerates; full of the project of being employed to found a settlement in his *Tierra del Espiritu Santo*, he endeavours to represent every thing to the eyes of the Spanish monarch as beautiful and great. Torquemada reduces the dimensions of the bay; he gives twelve leagues in length to the eastern side, fifteen to the western, and eight across. These dimensions are still exaggerated; and we should rely upon the measurement of Cook, who had no interest in lessening the bay of *San-Felipe y Sant-Yago*. He says that it is every where free from danger, and of unfathomable depth, except near the shores, which are for the most part low. Quiros says that there is anchorage there between two rivers, in different depths of water, from forty fathoms to six: but, probably, he spoke only of the inmost recess of the bay, named by him *Puerto de la Vera Cruz*, which Captain Cook supposes his boats not to have reached.

“The country,” adds the English navigator, “offers every where an uncommonly luxuriant vegetation; the sides of the hills (which bound the bay on each side) were chequered with plantations, and every valley watered by a stream. Of all the productions of nature this country was adorned with, the cocoa-nut trees were the most conspicuous. The columns of smoke we saw by day, and the fires by night, all over the country, led us to believe that it is well inhabited, and very fertile.”

In these islands of the Archipelago of *Tierra Austral*, Cook found all the trees which Quiros declared he had seen in the parts known to him; and among those which produce spices, he was convinced

that nutmeg and pepper trees exist. The Spanish navigator had reported that orange and lemon trees are common in his *Tierra Austral*, but that the inhabitants do not eat the fruit. At *Manicollo* the English saw a decayed orange on the beach, and the same at *Tanna*; and they were not eatable. It is probable that this fruit, so agreeable and useful in the Torrid Zone, is natural to other islands of this Archipelago, as well as those which have been visited; and, without doubt, a proper cultivation would soon make them very proper for the nourishment of man. Cook observes, that these are the only islands of the South-Sea in which he met with oranges. In the island of *Tanna* he saw a fruit like a nectarine: this was the *Melocoton* which Quiros found in his *Tierra del Espiritu Santo* [D].

“Quiros,” says Mr. Forster, “had reason to extol the beauty and fertility of this country: it appears indeed to be one of the most beautiful in the world. Its riches in vegetable productions, would doubtless have offered great treasures to the science of botany, because it was the largest country we had seen except New Zealand, and has never been examined by any naturalist.”

Avarice must not, however, flatter itself with the hope of finding gold, silver, and pearls, the seducing attractions of which the exaggerating Spaniard set before his master; but more real treasures may be transported thence, in those useful productions which European

[D] See p. 54. Quiros and Cook had painful experience, in themselves and their men, that some of the fish which abound on these coasts are poisonous, and cannot be eaten without the greatest danger.

industry

industry might naturalize in our climates, and doubtless with much more success in our transmarine possessions.

M. de Bougainville, who had approached the land at the island of Aurora in 1768, and doubled it at the north, had sailed along the eastern coast of the *Tierra Austral* of Quiros from north to south, and had passed between the south coast of that island and the northern part of *Manicollo*.

“When we came towards land there,” says he [E], “every thing tended to persuade us that we were at the *Tierra Austral del Espiritu Santo*. Every appearance seemed to agree with the narrative of Quiros; and our daily discoveries further encouraged our researches. It is very singular, that precisely in the same latitude and longitude wherein Quiros places his great bay of St. Philip and St. James, on a coast which, at first sight, appeared to belong to a continued land, we found a passage of equal extent to that which he attributes to the opening of his bay [F]. Did the Spanish navigator see incorrectly? Did he wish to disguise his discoveries? Did the geographers proceed merely by guess when they made one continued land of the *Tierra Austral* and *New Guinea*? To resolve the problem,

[E] See his *Voyage round the World*, p. 252, 4to. edit.

[F] It appears that the latitude of the bay, $15^{\circ} 20'$, indicated by Arrias, was unknown to M. de Bougainville: for his passage, which he took for the bay of Quiros, is $15^{\circ} 40'$ on his chart. Besides, Quiros says that his bay ran from north to south, whereas M. de Bougainville's passage runs from east to west. But the *Tierra Austral* was so badly represented on most of the charts as naturally to occasion errors.

it was necessary to proceed upon the same parallel more than 350 leagues ; which I resolved to do, though the state and quantity of our provisions warned us to make the best of our way to some European settlement."

The geographical system which placed the *Tierra Austral* in the neighbourhood of *New Guinea*, was that which best agreed with so much as was known of the track of Quiros ; for though the latter Archipelago was more than 300 leagues south-east from the former, they are in some sort connected by Mendana's islands of *Santa-Cruz*, and the *Archipelago of the Arfacides*, which extend in this direction as far as New Ireland. M. de Bougainville, without knowing it, had himself solved the problem which he sought to have elucidated.

Capt. Cook has preserved the names which M. de Bougainville gave to the islands, *Pic de l'Etoile*, *Aurore*, *des Lepreux*, and *la Pente-côte*, and to his passage between the islands of *Manicollo* and *Espiritu Santo*, that of *Bougainville's Passage* ; but he thought that the complete review which he took of this Archipelago gave him a right to change the general name of *New Cyclades*, imposed by the French navigator, into that of *New Hebrides*. It does not appear what advantage this substitution could promise to geography ; and it is with pain that we see reason to suspect the famous Cook, so rich in great discoveries, of desiring to weaken, in some measure, the remembrance of those navigators who had pre-occupied his successes. We hope that geographers, who, as the object of their labours and researches is the world at large, should be of no country, will be

eager

eager to restore in their works the name of the first navigator, who, without models and without means, empowered by his genius, and assisted only by his courage, opened the career to subsequent generations. They will doubtless efface for ever the new names of *Great Cyclades* and *New Hebrides*, and restore the original name of *Tierra Austral del Espiritu Santo* of Quiros, or *Archipelago of the Holy Ghost*, reserving to modern navigators only that part to which they have just claim in the completion of the discovery.

§ VI.

New Caledonia discovered by Captain Cook in 1774.

WE have inserted the discovery of New Caledonia only because it completes those of Captain Cook in this part of the *Great Equatorial Ocean*, and has some relation to the discoveries of the French.

We have seen that he could not exactly discover the breadth of this great island, of which he saw only the eastern coast, and that he could still less inform himself of the extent of those lands surrounded by reefs, which he perceived to the north-west of the most northern part of that island.

“Whether,” says he [G], “these lands be separate islands, or connected with New Caledonia, it is by no means certain that we

[G] *Cook's Second Voyage*, Vol. II. p. 144.

saw their termination to the west. I think we did not; as the shoals did not end with the land we saw, but kept their north-west direction farther than Bougainville's track, in the latitude of 15° , or $15^{\circ}\frac{1}{2}$. Nay, it seems not improbable that a chain of isles, sand-banks, and reefs, may extend to the west, as far as the coast of New South Wales. The eastern extent of the isles and shoals off that coast, between the latitude of 15° and 23° , was not known. The resemblance of the two countries; Bougainville's meeting with the *shoal of Diana* above sixty leagues from the coast, (in passing from Tierra Austral to Louisiade); and the signs he had of land to the south-east, all tend to increase the probability. I must confess that it is carrying probability and conjecture a little too far, to say what may lie in a space of 200 leagues [1]; but it is in some measure necessary, were it only to put some future navigator on his guard."

We should have ventured to undertake opposing the opinion which Captain Cook endeavoured in this place to establish, if he had not himself condemned and corrected it towards the end of his

[H] Captain Cook, in examining the eastern coast of New Holland, between the 15th and 23d degree of latitude, had passed through some channels formed by the main land on the west, and on the east by clusters of islands, banks, reefs, &c. and he could not ascertain to what distance the shoals stretched eastward: he here supposes that they might be connected with those of New Caledonia.

[1] We do not know how Captain Cook could estimate this distance at no more than 200 leagues; but it is certain that from the north-west point of New Caledonia it is more than *three hundred and fifty leagues* to the coast of New Holland, in a north-west direction.

voyage,

voyage, when *M. Crozet*, whom he met at the Cape of Good Hope, communicated to him the discoveries which the French had made in the South Sea, and in the vicinity of New Caledonia.

“ By Captain Crozet’s chart (says Capt. Cook) [K], it appeared that a voyage had been made by the French across the South Pacific Ocean in 1769, under the command of one Capt. Surville; that he proceeded by way of the Philippine Islands, passed near New Britain, and discovered some land in the latitude of 10° south, longitude 158° east, from Greenwich (155° 40′ east from Paris) to which he gave his own name [L]. From hence he steered to the south, passed but a few degrees to the west of New Caledonia, fell in with New Zealand at its northern extremity, and put into Doubtful Bay [M], where, it seems, he was when I passed it on my former voyage in the *Endeavour*, in 1769, &c.”

“ These voyages of the French (continues Captain Cook) have contributed *something* towards exploring the Southern Ocean. That of Captain Surville clears up a mistake which I was led into, in imagining the shoals off the west-end of New Caledonia to extend

[K] *Cook’s Second Voyage*, Vol. II. p. 267.

[L] We have no information that Surville ever gave his own name to the lands which he discovered. All the journals mention the *Isles of the Arfacides*, and no other name.

[M] *Doubtful Bay*, mentioned by Captain Cook, is Surville’s *Chevalier Bay*, or Creek. See the extract from his voyage, at the end of that of *Marion*, and the *Chevalier du Clefmeur*.

to the west as far as New Holland. It proves that there is an open sea in that space, and that we saw the north-west extremity of that country."

This island, one of the largest of those which have been visited in the *Great Equatorial Ocean*, would offer an asylum and resources to voyagers, if the fertility of its soil, and the abundance of its productions, bore any proportion to the gentle manners and hospitable character of its inhabitants. But the land is untractable, dried by the heat of the sun, covered with mountains and barren rocks, and hardly suffices for the subsistence of its cultivators. Bananas and sugar-canes are far from plentiful there; the bread-fruit is scarce; the cocoa-nut trees do not shoot up as vigorously as in the other islands; and the trees in general produce only a moderate quantity of fruits. No quadruped is known to exist there, and birds are not common. The sterility of the soil prevents the inhabitants from contributing any thing to supply the wants of navigators, excepting wood for masts, of which the islands at the southern extremity afford such as is finely grown, and of an excellent quality. Perhaps the sea makes amends to these good islanders for the dearth of land productions: the form of the coasts, every where bordered with reefs, breakers, and islets, promises an abundance of fish.

Mr. Forster, from the observations he made, in his botanical excursions, on the stones and rocks of Caledonia, suspected that the soil contained the precious metals. May the islanders, if Nature has made them this pernicious present, remain in ignorance of it for ever!

§ VII.

The Land of Louisiade, discovered by M. de Bougainville, in 1768.

THE critical situation to which M. de Bougainville found himself reduced by want of provisions, did not allow him to employ his time in exploring an unknown land, where he could not hope for any supply. In doubt whether he should find a passage to the west of this land, uninformed of the strait through which *Luis Vaex de Torres* had passed, in 1606, in going from the *Tierra Austral* to the *Philippines*, the existence of which has since been confirmed by Captain Cook; and lastly, fearing to entangle himself in some gulf of the almost unknown lands of New Guinea, he struggled sixteen days against adverse winds, beating off and on in sight of this land, in order to double the coast on the east, and then bear away to the north. Every thing which M. de Bougainville saw of it, declares that the land is fertile and populous, but there is no certain knowledge whether the openings in the coast indicate bays, gulfs, the mouths of rivers, or channels between islands; whether the whole be one continued land, or an Archipelago.

In placing on the chart of 1785, (Plate I.) this chain of coasts, which M. de Bougainville has named land or gulf of *Louisiade*, in assigning it to the latitudes observed by him, and the longitudes resulting from the calculation of his track, referred to the meridian of

the *Port of Cape St. George*, it was perceived that this coast corresponds with another more northern coast, which the Dutch yacht *Geelvink*, (the Chaffinch) followed and explored in 1705. We have a circumstantial relation of this discovery [N], but the latitudes and longitudes are not given. We only know by the Dutch charts, that these lands are situated to the south of New Britain, and that they must of necessity be at some considerable distance, because Dampier, who sailed round the one, had no knowledge of the other. But we are not informed whether the coast of the *Geelvink* be a continuation of the northern coast of New Guinea, properly so called; or whether, as we presume, this land be either a single island, or several islands divided by narrow channels, and constituting one Archipelago.

If the existence of the land of *Geelvink* be not doubtful, yet its true position is very uncertain: that which we have given to it, and of which we are not very tenacious, is founded merely on the position of *Cape Deliverance*, the most eastern part of the coast of *Louisiade*, which must be tolerably well determined, as to its relative situation to *Cape St. George* by M. de Bougainville's track. If we admit that these two points are well placed with respect to each other, we must also admit that the eastern part of *Geelvink* land is much more westerly than *Cape Deliverance*, because M. de Bougainville, when he sailed from this cape, though he steered at first N. N. W. then N. and lastly N. $\frac{1}{4}$ N. E. and N. N. E. did not

[N] See the *Histoire des Navigations aux Terres Australes*, by the president de Brissés, Vol. II. p. 444.

perceive any land to the west, till he fell in with the islands which form Bougainville's Strait. It is very probable that there is a passage between these islands and the coast of the *Geelvink*; and we cannot adopt the opinion of those who consider the land of the *Geelvink*, the *Isle of Bougainville*, and *Louisiade* as only one land.

§ VIII.

Of some Assemblages of Islands situated to the East of New Ireland.

SEVERAL navigators in the last century and in this, after having traversed the *Great Ocean* from the east to the west, have fallen in with the south-eastern part of New Guinea, which Carteret named *New Ireland*, and which is separated from New Britain by the strait which he discovered, and passed through, in 1767. The impossibility there was, till these latter times, to fix precisely the longitude of islands that were discovered, has introduced a great confusion among the groups situated between the fourth parallel and the neighbourhood of the fifth, from the meridian of Cape St. George in New Ireland, as far as six or seven degrees to the east of that cape.

The first known track is that of *Schouten* and *Le Maire*, in 1616 [o]. They came from the east. The 20th of June, in the

[o] There is a French translation of *Schouten's Journal* in the *Miroir Oost & West Indical*, &c. *Amst. Chez J. Jansz* 1621, in oblong 4to. p. 156. Mr. Dalrymple, in his *Historical Collection*, has also given some notes, extracted from *Le Maire's Journal*, published by *Barleus*, Vol. II. p. 60—63.

evening, they perceived a land, which appeared very low. The 21st, in the morning, they discerned it to be a group of three or four very small islands, covered with trees, and terminated by a reef which extended to the north-west. Two canoes, carrying five or six Indians each, came off from them; the men were armed with bows and arrows; and these were the first islands of the South Sea where Schouten and Le Maire had seen arms of this kind. The latitude of these islands was found to be $4^{\circ} 47'$ south.

On the 22d, in $4^{\circ} 45'$ latitude, some very low islands were discovered in the evening; they counted twelve or thirteen very near each other, and extending from south-east to north-west, for the space of one German league and a half, (two French marine leagues). They are situated 32 leagues (42 French leagues and $\frac{2}{3}$) from those which were seen the preceding day. They steered to the north-west, with the wind in the E. S. E. to pass to the north of these islands, lest they should be carried against a reef.

These twelve or thirteen islands, which are not named in the narrative of Schouten, must be *Ontong Java*, afterwards descried by Abel Tasman. Le Maire's account points them out under the name of *Marquen Eylenden* (Mark's Islands) [P].

[P] Le Maire's Journal reports the transactions of the 22d in the following manner. "The wind continued to blow from the east and east-south-east. At noon our latitude was $4^{\circ} \frac{3}{4}$; in the evening we discovered a very low land, 32 leagues ($42 \frac{2}{3}$ French leagues) from the former: the latter extends from east to west. We steered N. W. $\frac{1}{4}$ W. to pass to the north of the island, lest we should be driven upon a reef. The island was named *Marquen*."

On

On the 24th, at noon, they saw three low islands in the south-west, which seemed covered with trees and verdure; two of them are about two leagues long (two leagues and a half, French) but the third is small. Their coast is abrupt, and affords no anchorage; they were called the *Green Islands*. The distance from these islands to those seen on the 22d in the evening, is not mentioned in any of the narratives; but we may compute it from the way the vessel must have made from the 22d in the evening to the 24th at noon, that is, in 36 or 40 hours, which we may estimate at about 50 or 55 leagues of 20 to a degree.

Having passed the *Green Islands*, they discovered before them, to the W. $\frac{1}{4}$ N. W. another high island, presenting seven or eight remarkable summits. They did not attempt to put in, because it was near sun-set, and passed the night standing off and on, in the space which separates this island from the *Green Islands*, which, according to Le Maire's Journal [Q], was computed to be 15 leagues (20 French marine leagues). This island they called *St. John*, from the name of the day.

In the morning of the 25th they discovered a land of prodigious height. They left the island of *St. John* to the west, and steered for this main land, which was presumed to be the eastern part of

[Q] According to Le Maire's Journal, after having passed the *Green Islands*, they discovered two other small islands, which they did not approach, because it was late. They passed the night standing off and on in the interval between these islands, which is about 15 (German) miles.

New Guinea: they coasted along the north side with the wind E. S. E. but found no anchorage, &c.

To estimate, by approximation, the distance from *Ontong-Java* to the eastern part of New Guinea, now named New Ireland, we will at present recapitulate the several distances resulting from the way made by Schouten and Le Maire. From *Ontong-Java* to the *Green Islands*, about 53 leagues of 20 to a degree; from the *Green Islands* to *St. John's* 20 leagues; from this island, to the meridian of the north-east point of *New Ireland*, according to Dampier and Bougainville, 12 leagues: total distance 85 leagues, equivalent to about $4^{\circ} 15'$ difference of longitude.

Abel Tasman, in 1643, sailing from the east, fell in with *Ontong-Java*. According to that Navigator, this group of islets, situated in $5^{\circ} 2'$ of south latitude, is ninety German leagues (120 French) or six degrees of longitude distant from the eastern part of New Guinea, at which he afterwards arrived. When he perceived it first, it bore west, at the distance of four leagues ($5\frac{1}{2}$ French); and he counted twenty small islands. According to the plan designed by *Francis Valentyn*, nine of these islands are well wooded, the rest are dry; and the whole group is surrounded by a reef[R].

[R] See *Omstanding Verhaal van de Geschiedenissen en Zaaken, &c.* Door François Valentyn, Dordrecht & Amst. 1726 fol. vol. iii. *Naaukeurige Verhandeling van Banda*, page 56. Plate 16, Q.—Mr. Dalrymple, in his *Historical Collection, &c.* vol. ii. p. 83. makes the distance of the vessel from *Ontong-Java* when it bore west, five miles instead of four; and reckons twenty-two islands. We have thought it best to follow the original text of Valentyn. See his account above-cited, p. 55.

Dampier,

Dampier, who was sailing from the west when he fell in with the island of *St. John*, does not specify the distance of that island from the north-east point of New Ireland; but if we take it from his chart, we see that their difference of meridian is about 36 minutes, or 12 French marine leagues. He says that the island of *St. John* is about nine or ten leagues in circumference, and is covered with trees: that on the declivity of the hills are regular plantations, inclosed with cocoa-nut trees; and that near the bays are thick groves. Three canoes put off from the coast to examine the vessel; but the men in them, who resembled all the natives of New Guinea, and spoke the same language, would never go along-side of the ship.

Carteret, in 1767, crossed the track of Le Maire and Schouten in the longitude of about 153° east from Paris. In the latitude of $4^{\circ} 36'$ south, and $1^{\circ} 58'$ west of the meridian of Cape St. George [s], he fell in with a group of *nine islands*, extending from N. W. $\frac{1}{4}$ W. to S. E. $\frac{1}{4}$ E. for the space of about fifteen leagues. "One of these islands, says he [T], is of considerable extent; the eight others are little more than great rocks; but though they are low and flat, they are well wooded, and covered with inhabitants. These islanders are black, and have woolly heads like the African negroes. Their arms are bows and arrows; they have large canoes carrying one sail, one of which approached us, but would not venture alongside." Carteret

[s] According to Carteret's Journal, the middle of his group of Nine Islands is in the longitude of $154^{\circ} 17'$ east from Greenwich, and Cape St. George $152^{\circ} 19'$.

[T] See *Hawkesworth's Voyages*, Vol. i. p. 587.

concludes by saying, that these islands are called *Obang-Java* (*Ontong-Java*) by *Abel Tasman*.

We cannot agree in opinion with this English Navigator; and it appears to us demonstrable, that his Nine Islands are not *Ontong-Java*. 1st. According to him, the middle of his group of islands is in the latitude of $4^{\circ} 36'$ [u]: *Ontong-Java* is in $4^{\circ} 45'$; according to Le Maire and Schouten; in $5^{\circ} 02'$, according to Tasman; and $4^{\circ} 53'$, according to the frigate *Princefa*. 2dly. Carteret places them at $1^{\circ} 58'$, or about 40 French marine leagues to the east of the meridian of Cape St. George: Tasman says, that *Ontong-Java* is 90 German leagues, or 120 French, to the east of the same meridian: and the route of Schouten and le Maire gives this difference of 85 leagues, of 20 to a degree (Page 252). 3dly. The *Nine Islands* are very much peopled: the silence of Tasman, and the other Dutch Navigators, concerning the population of *Ontong-Java*, would not alone be a proof that it is not inhabited; but in the Journal of the frigate *Princefa*, where the plan of it was taken, and all the particulars examined, it is said expressly, that no traces of inhabitants were seen. 4thly. Carteret gives his group of the *Nine Islands* an extent of fifteen leagues: *Ontong-Java*, according to Schouten, does not exceed two; and the plan given by *Valentyn* points out, that the 20, or 22 islands of which it is composed, occupy only a small space.

[u] This latitude is that given in the narrative; but upon the chart which accompanies it, it is $4^{\circ} 45'$.

We

We may then regard it as certain, that the *Nine Islands* of Carteret, and the *Ontong-Java* of the Dutch, are not the same group; and that, though placed very nearly in the same latitude, they are distant from each other about 67 or 68 leagues of twenty to a degree; in other words, that their difference of meridian is about three degrees and a half.

On the evening of the same day, when Captain Carteret had discovered the group of *Nine Islands*, he fell in with *Sir Charles Hardy's* Island, which is large, flat, green, &c. The fires which were seen at night proved it to be inhabited: it is in the latitude of $4^{\circ} 50'$, [x] and distant fifteen leagues from the northernmost of the *Nine Islands*.

The next day, the 25th, they saw to the S. $\frac{1}{4}$ S. E. of Hardy's island [y], and distant about ten leagues, that of *Lord Winchelsea*,

[x] As Carteret passed to the south of this island, we suppose that he has given the latitude of its southern coast. The chart of this part of his voyage places this southern coast in latitude $4^{\circ} 33'$. The difference between the narrative and the chart is, therefore, 17 minutes. If it were supposed that the latitude of the narrative refers to the middle of the island, as this point is placed on the chart in $4^{\circ} 25'$ the difference would be still greater. It is seldom that the charts of Hawkesworth's Collection agree with the narratives. As these, however, must have been drawn up from the original journals, they ought, whatever may be said of them, to be more relied on than the charts, of which we know not the foundations.

We learn that there has appeared in England a work, which we regret not finding subjoined to these accounts; a Collection of Astronomical Observations made in the course of the four Voyages: these would remove the uncertainty which arises in every page, from the disagreements between the narratives and the charts.

[y] These two islands on the chart, bear N. and S. to each other, instead of N. $\frac{1}{4}$ N. W. and S. $\frac{1}{4}$ S. E.

which on the chart is called *Lord Anson's Island*. As they saw only its northern coast, we must conclude, from the bearing and distance taken in a remote situation, that this part of Anson's Island is nearly half a degree more south than Sir Charles Hardy's Island, and about six minutes more east.

The 26th, in the morning, they discovered a great island to the north: this was judged to be Schouten's Island *St. John*; and soon after they perceived the high lands of the eastern part of New Britain (now New Ireland).

The account does not point out the position of the island *St. John*; but the chart places it forty minutes more north, and forty-three more east than Cape St. George.

M. de Bougainville, in 1768, fell in with some of the islands to the east of New Ireland which Carteret had seen the year before. His account enters into no detail upon this point; but we see them on the charts annexed, with the names imposed by the French Navigator. His island of *Bouca*, the northern part of which lies in latitude $5^{\circ} 7$ or 8 minutes, is *Lord Anson's Island*; and another unnamed island, 10 or 11 leagues distant to N. $\frac{1}{4}$ N. W. and N.N.W. of *Bouca* must be the same as *Sir Charles Hardy's Island*. The island *Bournand* is Schouten's *St. John*, which M. de Bougainville places one degree more north, and fifty minutes more east than Cape St. George. There is, moreover, on his chart, a small unnamed island, little less than three leagues to the south of the southern part of *St. John*. This island is not marked either on Dampier's chart

or

or that of Carteret. There is another named *Oraison*, two leagues and a half to the N. W. of *St. John*, which is noticed only in the chart. Continuing to follow it to the W. N. W. and N. W. we meet with his islands of *Bouchage*, which are those of *Antony Cave*, according to Dampier. The island *Suzannet*, which represents the islands of *Garet Denis*, and those of *Wiskart*; a small island named *Kerue*, which appears on no other chart: in a word, several islands without names, between the latitude of $1^{\circ} 15'$ and $1^{\circ} 45'$ S. which must be the islands *Squally* and *Matthias* of Dampier: which latter is also the *Admiralty Island* of Carteret.

To conclude what concerns this northern part of New Guinea, we will just point out, that the *Admiralty Island* of Carteret is that distinguished by Schouten, under the name of *Hoock Landt* (high land) to the south of which are his *Twenty-five Islands*, named upon some charts, *Isles de la Magdalena*; and that the most western point of Carteret's *New Hanover*, is the cape which the Dutch had named *Solomafwer*.

The substitution of new names for lands or islands known before, introduces a confusion and ambiguity very hurtful to the progress of geography. It is very much to be wished that navigators, before they allowed themselves to give a name, would ascertain, whether some one had not seen and named those very points before them. We cannot too earnestly invite them to make some little sacrifices of self-love, in behalf of public utility.

FOUNDA-

FOUNDATIONS AND ANALYSIS

OF A

NEW CHART

OF THE

DISCOVERIES OF THE FRENCH,

TO THE

SOUTH-EAST OF NEW GUINEA.

WE have given, in No. I, a fragment of the charts prepared in 1785, to guide *M. de la Pérouse* in the *Voyage to different parts of the world*, which the king committed to his direction. This fragment displays the *Discoveries made by the French in 1768 and 1769, to the South-East of New Guinea*: and as the object was to ascertain the point at which these discoveries stood before Mr. Shortland, in 1788, fell in with the southern coast of that same *Archipelago of Solomon's Islands*, which M. de Bougainville and Surville had seen and visited as early as 1768 and 1769, we have not allowed ourselves to make the slightest change in the original chart of 1785, which has been, from that time, in the hands of his Majesty. But now, that the priority of the French is well established, we must not neglect to employ

employ whatever information we can collect, to bring this chart to perfection, and prepare a new one, by which navigators may direct their course with some confidence, in the seas situated to the south-east of New Guinea. This, in our opinion, will be to render a particular service to the British nation, since Mr. Shortland has proved the N. N. E. course to be the safest that ships can take in going from *Botany Bay*, or *Port Jackson*, on the eastern coast of New Holland, to the coast of China.

But when we offer to navigators a new hydrographical chart, we should explain to them in the fullest manner, by what motives we have been induced to alter the known charts; we should discuss the observations on which our opinions are founded, and analyse the materials we have employed. When the safety of men is in question we must not substitute opinions for proofs; and when opinions only can be offered, they should be accompanied with the doubt that belongs to them. On this principle we have judged it indispensably necessary, to present the Foundations and the Analysis on which the Chart we are now publishing, is established: and to give it the utmost exactness of which it may be capable, we will separately examine and discuss the track of every Navigator who has visited the seas to the south-east of New Guinea: we will compare their results with respect to the points they have in common; which, by these means, we shall be able to determine, with sufficient exactness to diminish considerably the dangers of navigation in those parts. Some time or other, more numerous observations, and more particular surveys, will assign positions to these countries which will be permanent, and give them a form no longer subject to alteration.

The

The two points on which we shall principally found the corrections we have to make in the Chart of 1785, are, on the one part, *Aurora* Island of the *Tierra Austral* of Quiros; and on the other, the harbour, situated at the south-east point of New Ireland, which we will call the *Port of Cape St. George* [z]. These are the two extreme points of M. de Bougainville's discoveries in these seas.

The longitude of *Aurora Island* was determined in the second voyage of Capt. Cook, both by the watches or time-keepers, and by the distances of the moon from the sun, to be $168^{\circ} 13'$ east of the meridian of Greenwich [A], or $165^{\circ} 53'$ from that of Paris, which we consider as $2^{\circ} 20'$ east of the former.

The longitude of the *Port of Cape St. George* was determined by the eclipse of the sun, which was observed there on the 13th of July, 1768, by M. Veron, Astronomer, of the *Boudeuse* frigate. "In the

[z] This port was called *Gower's Harbour* by Captain Carteret, and *Port Praslin* by M. de Bougainville. We have thought it right to name it the *Port of Cape St. George*, to preserve a name analogous to that of *St. George's Bay*, which the famous Dampier gave to this part of the sea, supposing it to be a bay or great gulf: it is also the entrance of the channel discovered by Carteret, between New Britain and New Ireland.

[A] For the longitudes determined in Cook's second Voyage, we have followed those given in the *Collections of Observations*, published by Order of the Board of Longitude, and not those in the body of the Narrative, which frequently differ from them. We have taken the same method in marking the latitudes. See the *Original Astronomical Observations, made in the Course of a Voyage towards the South Pole and round the World, &c. in the Years 1772-73-74 and 75; by W. Wales, and W. Bayly, London, 1777. Page 324, &c.*

morn-

morning of the 11th (says M. de Bougainville) [B] M. Veron fixed his quadrant on land, and a clock that beat seconds; and the motion of the clock was ascertained with precision, by correspondent altitudes, taken on two successive days. There was to be an eclipse of the sun visible to us, on the 13th; and it was necessary to be prepared to observe it, should the weather permit. It was very favourable; and we could see the moment of immersion and that of emersion. M. Veron took the observation with a telescope of nine feet; *Le Chev. du Bouchage*, with a four-foot achromatic telescope of Dolland: my station was at the clock. The beginning of the eclipse with us was on the 13th, at 10^h 50' 45" in the morning; the end at 10^h 28' 16" of true time, and its magnitude 3' 22".

This eclipse was not visible in the northern hemisphere, and we know of no corresponding observations that can be compared with those made at *Port Praslin*, or the *Port of Cape St. George*. M. de la Lande of the Royal Academy of Sciences, who has all the original observations made by M. Veron in the course of M. de Bougainville's Voyage, carefully calculated that of the eclipse of the sun, and compared it with the tables, in 1771: whence he determined the longitude of the *Port of Cape St. George* to be 150° 46' 30" east from Paris [c]. M. Méchain, Astronomical Hydrographer of the Navy and a Member of the Royal Academy of Sciences, has been so kind as to calculate this observation anew, at our request; and he found that the conjunction,

[B] See M. de Bougainville's *Voyage round the World*. 4to. edit. p. 278.

[c] M. de la Lande's Calculations are in the *Memoirs of the Royal Academy of Sciences in the Year 1771*. Page 462, &c.

as resulting from the two phases taken together, and compared with the time of the conjunction at Paris, by the tables, gives only $150^{\circ} 39' 30''$ for the same longitude [D]. This result is five minutes of a degree less than that of M. de la Lande: but there is reason to believe it more exact, as M. Méchain calculated the time of the conjunction at Paris by the new solar tables, which are much more exact than those of the *Abbe de la Caille* (the only tables that could be used in 1771) and by *Mason's* lunar tables, which represent the places observed better than those of M. de la Lande's astronomy. The greater part of that difference of seven minutes between the two results, arises from the difference of the tables.

As to the latitude of *Aurora* Island, and that of the *Port of Cape St. George*, the former taken from the northern point of the island is $14^{\circ} 52' 00''$ according to the observations made in Captain Cook's second Voyage; the latter, concluded from meridian altitudes of the sun observed on land by M. Véron, with a quadrant the error of which was rectified, was found to be [E] $4^{\circ} 49' 39'',6$.

[D] *M. Méchain's* calculations are subjoined at the end of this analysis.

[E] M. Veron rectified the error of his quadrant by reversing it. On the 12th and 14th of July he observed several altitudes of the sun very near the meridian; that is to say, he followed the sun for several minutes, both before and after the time of his coming upon the meridian: the time of each altitude was marked, and it was easy to find how far the instant of each observation of altitude was distant from the instant of true noon. *M. Méchain* made all the calculations with rigorous exactness, and took a mean between the different results. The meridian altitude on the 12th was taken from five observations, and that of the 14th from seven. The latitude by the altitudes of the 12th was $4^{\circ} 48' 30'',6$; by those of the 14th, $4^{\circ} 50' 48'',6$; and by a mean between them $4^{\circ} 49' 39'',6$.

Having thus fixed the two extreme points of M. de Bougainville's track, we proceed to state the absolute situations of the principal points of his discoveries, as they appear on the charts inserted in his voyage [F]; and thence we shall deduce the difference of meridian of each of these intermediate points as referred to the two extremes: these differences, compared with the observed longitudes of those two places, will enable us to determine the absolute situation of the others by approximation. With regard to the latitudes, we will examine what correction it may seem necessary to give to some of those assigned to different points, in the charts of M. de Bougainville's voyage.

[F]. We cannot but regret very greatly, that M. de Bougainville has not reported, in his narrative, the latitudes observed by him, and the longitudes of the points in sight of which he sailed, according to his reckoning: we are obliged to take them from the charts dispersed through the volume; and these have been negligently executed. The divisions of the scale on one side, does not always correspond with those of the opposite; and there arise differences of 2, 3 or 4 minutes, as the places are referred to one scale or the other, either for latitude or longitude. We have always referred the position of each point to the scale nearest it. It is particularly observable, that in Plate XII. the numbers of the scale of latitude on the right side are false from the 6th degree downwards. The 6th degree is marked in the place of $5^{\circ} 45'$; the 7th for $6^{\circ} 45'$, &c. these are errors in the engraving which should have been corrected.

DISCOVERIES TO THE

TABLE of the geographical Positions of the principal Points of M. DE BOUGAINVILLE'S Discoveries, taken from the particular Charts inserted in the Account of his Voyage round the World.

NAMES OF PLACES.	South Latitude.			Longitude, East from Paris.		
	D.	M.	S.	D.	M.	S.
Aurora Island, <i>at its northern point</i> , - - -	14.	56.	15	166.	47.	30
Diana's Shoal, <i>in the middle</i> , - - - - -	15.	45.	00	149.	07.	30
Two Shoals, <i>west of the former, at the middle of the space between them</i> , - - - - - }	15.	29.	00	146.	37.	30
Cul-de-sac de l'Orangerie, <i>exactly in the midst of the greatest islet to the west</i> , - }	10.	01.	00	147.	26.	30
Cape Deliverance, - - - - -	11.	45.	00	151.	30.	00
Choiseul Bay, <i>at the extreme western point of the outer lands in the strait</i> , - - - - - }	6.	45.	00	152.	59.	00
Cape l'Averdi, <i>at the islet</i> , - - - - -	5.	31.	45	151.	42.	30
Bouca Island, <i>at its north point</i> , - - - - -	5.	07.	30	151.	25.	00
Port of Cape St. George, or Port Praslin, <i>of New Ireland, at the point where the eclipse was observed, on the south coast, near the river</i> , - - - - - }	4.	51.	00	149.	52.	30

On comparing the longitude of the intermediate points with those of the two extreme points, their respective differences of meridian are the following :

NAMES OF PLACES.	Difference of Meridian from <i>Aurora Island</i> .			Difference of Meridian from the Port of <i>Cape St. George</i> .		
	D.	M.	S.	D.	M.	S.
Aurora Island, <i>northern point</i> , - - - - -	0.	00.	00	16.	55.	00 E.
Diana's Shoal, <i>middle</i> , - - - - -	17.	40.	00 W.	0.	45.	00 W.
Two Shoals, <i>west of Diana's</i> , - - - - -	20.	10.	00 W.	3.	15.	00 W.
Cul-de-sac de l'Orangerie, <i>greatest islet, west</i>	19.	21.	00 W.	2.	26.	00 W.
Cape Deliverance, - - - - -	15.	17.	30 W.	1.	37.	30 E.
West Coast of Choiseul Bay, - - - - -	13.	48.	30 W.	3.	06.	30 E.
Cape l'Averdi, <i>at the islet</i> , - - - - -	15.	05.	00 W.	1.	50.	00 E.
Bouca Island, <i>north point</i> , - - - - -	15.	22.	30 W.	1.	32.	30 E.
Port of Cape St. George at the observatory,	16.	55.	00 W.	0.	00.	00

If we refer these differences of meridian deduced from the reckoning of M. de Bougainville's course, to the absolute longitude of *Aurora Island* on the one side, and to that of *the Port of Cape St. George* on the other; the former determined by Captain Cook's observations, the latter by that of M. Véron, we shall have the following longitudes east from Paris, corrected from those of the two extreme points.

NAMES OF PLACES.	Referred to <i>Aurora</i> <i>Island.</i>	Referred to the <i>Port of</i> <i>Cape St. George.</i>
	D. M. S.	D. M. S.
<i>Aurora Island, northern point, - - - - -</i>	165. 53. 00 obs.	165. 53. 00 obs.
<i>Diana's Shoal, middle, - - - - -</i>	148. 13. 00	149. 54. 30
<i>Two Shoals, west of Diana's, - - - - -</i>	145. 43. 00	147. 24. 30
<i>Cul-de-sac de l'Orangerie, greatest islet, west,</i>	146. 32. 00	148. 13. 30
<i>Cape Deliverance, - - - - -</i>	150. 35. 30	152. 17. 00
<i>West Coast of Choiseul Bay, - - - - -</i>	152. 04. 30	153. 46. 00
<i>Cape l'Averdi, at the islet, - - - - -</i>	150. 48. 00	152. 29. 30
<i>Bouca Island, north point, - - - - -</i>	150. 30. 30	152. 12. 00
<i>Port of Cape St. George at the observatory,</i>	150. 39. 30 obs.	150. 39. 30 obs.

As *Aurora Island*, according to Captain Cook's observations, is $165^{\circ} 53'$ east from Paris, and the *Port of Cape St. George* in New Ireland, from the observation of the eclipse, is $150^{\circ} 39'\frac{1}{2}$, their difference of meridian is $15^{\circ} 13'\frac{1}{2}$: and as the charts of M. de Bougainville's Voyage have placed *Aurora* in $166^{\circ} 47'\frac{1}{2}$, and the *Port of Cape St. George* in $149^{\circ} 52'\frac{1}{2}$, the difference of those meridians is $16^{\circ} 55'$, and consequently greater by $1^{\circ} 41'\frac{1}{2}$ than that which is deduced from the observations [G].

From

[G] In thus attributing an error of $1^{\circ} 41'\frac{1}{2}$ to M. de Bougainville's course, we suppose the longitudes of *Aurora*, and the *Port of Cape St. George*, to be equally well

determined,

From this error it arises that the results drawn from M. de Bougainville's course, for the points comprised between *Aurora Island* and the *Port of Cape St. George*, when referred to *Aurora Island*, give longitudes differing $1^{\circ} 41\frac{1}{2}'$ from those obtained for the same points when referred to the *Port of Cape St. George*. We will examine in what cases the one set should be preferred to the other, and we will begin with one of the points of M. de Bougainville's discovery, which has since been viewed by Mr. Shortland, the longitude of which

determined, and that their difference of meridian is precisely $15^{\circ} 13\frac{1}{2}'$, which cannot be rigorously true.

Captain Carteret, who had touched at the *Port of Cape St. George* a year before M. de Bougainville, places it $152^{\circ} 18'$ east from Greenwich, or $149^{\circ} 58'$ east from Paris: his longitude differs, therefore, only $5\frac{1}{2}'$ from that of the French navigator, a conformity which appears surprising. But should there appear reason to suspect that one of these longitudes has been regulated by the other, we would remark that the account of M. de Bougainville's Voyage was published in 1771, whereas that of Capt. Carteret did not appear till 1773, in Hawkesworth's Collection. We would remark also that, in the general chart of the South Sea accompanying that collection, the *Tierra Austral* is traced exactly as M. de Bougainville has given it in his chart; that *Aurora Island*, the *Isles of Lepers* and *Whitsuntide*, and the two portions of the great land between which he passed, are designed there very exactly, which the compiler of Carteret's Voyage certainly had not found either in the relation of Quiros, nor in any chart prior to 1771: finally, we would add, that *Bougainville's Strait*, and the north-west part of the *Lands of the Arfacides*, which were discovered by the French navigator in 1768, are equally well figured on the chart of the English Collection, and placed at their latitude and longitude; and we should be authorized to conclude, that the compiler of Carteret's Voyage, though he has not said so, had Bougainville's charts and accounts under his eye, and took advantage of them in drawing up the other narrative.

he

he also endeavoured to determine, by computing it according to the reckoning of his course, from the point where the day before he had taken an observation of the moon's distance from the sun, to fix the longitude of his vessel.

It appears in Mr. Shortland's table of results, which we have copied at the end of the abstract of his journal, that his *Cape Alexander*, which is the western extremity of the outer lands of Choiseul Bay, in Bougainville's Strait, should be placed, according to his determination, in $156^{\circ} 40' [H]$ east from Greenwich, or $154^{\circ} 20'$ east from Paris. The longitude of the same point, according to M. de Bougainville's course, if referred to *Aurora Island*, would be $152^{\circ} 04\frac{1}{2}'$, and $153^{\circ} 46'$, if referred to the *Port of Cape St. George*, (page 277). This latter result appears to deserve the preference, because the *Port of Cape St. George* is very near the point whose position we would fix, and because M. de Bougainville went in five days from one point to the other by a direct course, with the wind either on his quarter or stern.

This longitude is less by 34 minutes than that assigned by Mr. Shortland to his Cape Alexander, and greater by $1^{\circ} 41\frac{1}{2}'$ than is obtained by referring it to *Aurora Island*: but this difference recedes too much from the two others to deserve regard; and that of Mr. Shortland is the result of a single observation, which, in its

[H] Shortland's chart places it in $156^{\circ} 45'$: the cause of this difference of five minutes between his table and his chart does not appear, and we have thought it best to rely upon the table.

own nature, is not susceptible of precision [1]. We think then, that for the longitude of the western coast of the lands of Choiseul Bay, or *Cape Alexander*, we should fix upon that which results from M. de Bougainville's course, always observing that it depends upon that of the Port of *Cape St. George*, which could not be invariably settled by the eclipse of the sun, on July 13, 1768.

To determine the longitudes of the two points which lie between *Choiseul Bay* and *the Port of Cape St. George*, we will employ the

[1] In the first place, we cannot rely within three quarters of a degree on the longitudes determined by single observations of the moon's distance from the sun or fixed stars, which are made at sea with reflecting *octant* or *sextant*. (See above, page 208, Note VII.) 2dly, Mr. Shortland did not observe in sight of the coast the longitude of which we are endeavouring to fix: his observation was taken on the 6th of August, and it was not till the night between the 7th and 8th that, after having gone 33 leagues in different directions, at the opening of a strait, where there must be a sensible effect from the currents, that he found himself abreast of *Cape Alexander*: consequently there is reason to apprehend some error of the reckoning in that interval. 3dly, Mr. Shortland passed through Bougainville's Strait by night; and we may judge by comparing the form and bearings he has given to the two sides of the Strait, with the chart of the French navigator, who passed it by day, that the darkness prevented the English navigator from observing the coasts correctly: there remains, therefore, an uncertainty respecting the precise point to which his determination is to be applied. A result liable to the influence of three causes of error has not seemed to us to deserve reliance; we have thought it right to abandon it, and adopt, without modification, the longitude which results from M. de Bougainville's course, referred to the *Port of Cape St. George*. We hope that the motives of this preference will justify it, and remove the suspicion of national partiality, to which the world is always tempted to attribute some influence.

differences

differences of meridian given by M. de Bougainville's chart as referred to the latter point.

According to this chart, *the islet* off Cape l'Averdi being $1^{\circ} 50'$ to the east of the *Port of Cape St. George*, its longitude will be $152^{\circ} 29' 30''$.

The northern point of the island *Bouca* being $1^{\circ} 32' 30''$ east of the same port, its longitude will be $152^{\circ} 12' 00''$ [κ].

The *four islands*, situated to the north of the eastern point of Bougainville's Island, and seen by Shortland, are, by his table, in latitude $4^{\circ} 50'$, and 30 minutes west of *Cape Alexander*. We have placed the latter (page 279) in $153^{\circ} 46'$ east from Paris; thus the middle of the four islands will be $153^{\circ} 16'$. ($155^{\circ} 36'$ east from Greenwich).

[κ] The chart of Carteret's discoveries on the coast of New Britain, (Hawkesworth's Voyages, Vol. I. p. 594) makes only $1^{\circ} 18'$ difference of meridian between the north point of his *Anson's Island*, (which is the *Bouca* of Bougainville) and the Port of Cape St. George. M. de Bougainville's chart gives, as we have seen, $1^{\circ} 32\frac{1}{2}'$, that is 14 minutes and a half more. Were the difference of meridian according to Carteret admitted, *Bouca Island* would be in $151^{\circ} 57\frac{1}{2}'$ of longitude: and if we were to add to it the difference between the island *Bouca*, and the west coast of the lands of *Choiseul Bay*, which according to Bougainville's chart is $1^{\circ} 34'$, we should have $153^{\circ} 31\frac{1}{2}'$ for the longitude of the latter point. We see that it would be less by 14 minutes and $\frac{1}{2}$ than that which we have adopted, and that it would be so much the more distant from that which Mr. Shortland has assigned to this point under the name of *Cape Alexander*.

It remains for us to determine the more southern points of M. de Bougainville's discoveries in this part, namely, *Diana's Shoal*, the two *Shoals* to the west of *Diana's*, *Cul-de-sac de l'Orangerie*, and *Deliverance Cape*.

M. de Bougainville having gone in seven days with a direct and very fresh wind, in a due east course, from the view of *Tierra Austral* to that of *Diana's Shoal*, it should seem that the progress in longitude, which is concluded from his reckoning, might be confidently employed to determine the difference of meridian between these two points: but as the longitude of $148^{\circ} 13'$, which is that of the shoal, according to the reckoning of M. de Bougainville's course, referring it to the position of *Aurora Island* [L], differs $1^{\circ} 41' \frac{1}{2}$ from the longitude of $149^{\circ} 54' \frac{1}{2}$, which is obtained from the same account, by referring it to the position of the *Port of Cape St. George*; we have reason to think that too much way was reckoned in going from *Tierra Austral* to *Diana's Shoal*. We will however observe, that the contrary winds which M. de Bougainville met with in part of the latter half of his course, for sixteen days together, from *Diana's Shoal* to *Cape Deliverance*, necessarily introduced a great uncertainty into the result of his reckoning; and that if we should refer this result to the *Port of Cape St. George*, the determination of the shoal would be affected by the whole error arising from those obstacles. We should then be tempted to take a mean between the two determinations, in which case the longitude of the shoal would be $149^{\circ} 03' \frac{1}{4}$: but as the result of the first part of his course,

[L] See above, p. 277.

which

which was direct, must have great weight, we think it allowable to bring it back about one-third of a degree westward, and place *Diana's Shoal* in $148^{\circ} 45'$.

As to the *Two Shoals*, west of the foregoing, and seen the same day, there is no reason why we should not allow them the same difference of meridian from it, as is given in the chart of M. de Bougainville's Voyage, namely, $2^{\circ} 30'$ more westward, which fixes them in $146^{\circ} 15'$. The same may be said of the *Cul-de-sac de l'Orangerie*, taken at the largest of the two islets on the west, which is $49'$ more to the east than the middle of the *Two Shoals*, and must therefore be in longitude $147^{\circ} 04'$.

But the position of *Cape Deliverance* cannot be regulated from the difference of meridian taken from the reckoning, between this cape and the *Cul-de-sac de l'Orangerie*; it would be affected by the whole error which must arise from the contrary winds, against which they beat up from this point to the other. It seems that we should refer *Cape Deliverance* to *Choiseul Bay*, and admit the difference of meridian between these two points, as it results from the direct course made by M. de Bougainville from the one to the other, that is, $1^{\circ} 29'$: subtracting which quantity from the longitude of the western coast of *Choiseul Bay*, namely, from $153^{\circ} 46'$, we shall have the longitude of *Cape Deliverance* $152^{\circ} 17'$.

Having fixed the longitudes of the principal points of M. de Bougainville's discoveries, to the south-east of New Guinea, as far as

the circumstances of his navigation and course would permit, we proceed to the latitudes of the same points.

According to the chart of his voyage, (Plate II.) the latitude of the northern point of *Aurora Island* should be $14^{\circ} 56' \frac{1}{4}$: according to the observations made on board the *Resolution*, in Capt. Cook's second Voyage, it is no more than $14^{\circ} 52'$: therefore that of M. de Bougainville is too great by $4' \frac{1}{4}$.

The latitude of the *Port of Cape St. George* of New Ireland, is $4^{\circ} 49' 39'' 6$, according to Véron's observations, and $4^{\circ} 51'$, according to the chart of the Boudeuse's Voyage (in the same plate); the latter is therefore too much by $1' \frac{1}{3}$. Carteret places this port in $4^{\circ} 56'$, or $5'$ more southerly than M. de Bougainville reckoned it.

The latitude of the western coast of the lands belonging to *Choiseul Bay* is $6^{\circ} 45'$, on the same chart; and that of Mr. Shortland's *Cape Alexander*, which is the same point, is $6^{\circ} 50'$, according to his table of results, (above, p. 200) and only $6^{\circ} 47'$ upon his chart. M. de Bougainville's is therefore less than Mr. Shortland's either five or two minutes.

Lastly, the latitude of the northern point of *Bouca Island* is $5^{\circ} 07' \frac{1}{2}$ on M. de Bougainville's chart; and on that of Carteret (where it is called *Lord Anson's Island*) $4^{\circ} 58'$; less southerly than the former by $9' \frac{1}{2}$: and as the latitude of the *Port of Cape St. George* is, according to Capt. Carteret, five minutes more south than according

to

to M. de Bougainville, it follows that the relative position of these two points differs as much as $14\frac{1}{2}'$ of latitude on the two charts. Carteret only saw his Anson's Island at a distance.

We will employ the latitude of *Aurora Island* and that of the *Port of Cape St. George*, as they arise from the observations of Cook, and those of Véron: and, for the latitude of the western coast of Choiseul Bay, we will adopt that of M. de Bougainville, because we cannot possibly judge whether Mr. Shortland, who passed the Strait in the night, referred the latitude precisely to the most westerly point of the coast. *Bouca Island* will also be placed in the latitude assigned by the French chart.

The other points of M. de Bougainville's discoveries in this part, not having been hitherto reviewed by any other navigator, we have no term of comparison for the latitudes in which his charts place them, and we will employ them as they are stated above, (at p. 276).

Before we endeavour to fix the positions of the northern coast of the *Archipelago of the Arfacides* by approximation, it is proper to determine that of *Gower's Island*, discovered by Captain Carteret in 1767, which is the *Inattendue* of Surville.

According to the account of the English captain, the western coast of *Gower's Island* lies in $158^{\circ} 56'$ east from Greenwich [M],
or

[M] See *Hawkesworth's Voyages*, Vol. I. p. 588. Though it be said in the introduction to that work, that when the charts do not agree with the text, we should attend

or $156^{\circ} 36'$ east from Paris; and as he places the *Port of Cape St. George* at $149^{\circ} 58'$ east from Paris, it follows that, according to him, the difference of meridian between these two points is $6^{\circ} 38'$: but this cannot be employed without correction. We have already seen (page 281, note K) that Carteret makes it $14^{\circ} \frac{1}{2}$ less from *Anson's Island* (or Bouca) to the *Port of Cape St. George*, than is concluded from M. de Bougainville's course, and as the space between *Anson's* and *Gower's Islands* must have been affected by a similar error, it appears to us that we may add 18 or 20 minutes for the whole space between *Gower's Island* and the *Port of Cape St. George*, and extend their difference of meridian from $6^{\circ} 38'$ to $6^{\circ} 57'$. The longitude of the port being fixed at $150^{\circ} 39^{\frac{1}{2}}$, that of *Gower's Island*, on its western coast, may be reckoned $157^{\circ} 36'$ east from Paris [N].

As attend to the charts; that is not the case here: for in the particular chart of the islands *Gower*, *Carteret* and *Simpson*, the meridian which passes by the western coast of the first island is marked 156° east from Greenwich; and yet it is certain that this longitude should be $158^{\circ} 56'$, as it stands in the text. We may be assured that it is so, by ascertaining its position upon the general chart which accompanies Carteret's Voyage, and upon the excellent chart drawn up by M. Robert, and annexed to the third Voyage of Captain Cook.

[N] The correction, by which we place *Gower's Island* at the longitude of $157^{\circ} 36'$, rests upon another foundation. We have seen in Surville's Voyage, (page 146) that in the morning of October 27, he had observed *the highest land he had seen* in his whole navigation along the Archipelago of the *Arfacides*, in the S. $\frac{1}{4}$ S. E. point of the compass, that is, in the actual S. 2° or 3° east, which he judged to be distant 16 or 18 leagues. We think it allowable to suppose that this was the same mountain which Mr. Shortland, who saw it on the south-side, has called Mount Lammas, and declares

As to the elevation of the pole, the southern coast is placed at 8° south latitude, as well as in the chart and narrative of Capt. Carteret, as in the four journals and on the charts of Surville's Voyage.

Having thus fixed the position of the *Gower's Island* of Carteret, or *Inattendue* of Surville, we will employ the French charts and journals to regulate the other points on the north and east coasts of the *Archipelago of the Arfacides*, conformably to this position [o].

According to these journals and by a mean taken between their results, the island of *PremiereVue* is in latitude $7^{\circ} 15' \frac{1}{2}$ S. and $2^{\circ} 39'$ W. of

declares to be at least as high as the peak of Teneriffe. Surville's vessel was therefore at that time nearly on the meridian of Mount Lammas. (See Chart III.) Therefore as that mountain, after the reduction of 34 minutes, which we have thought necessary to Mr. Shortland's longitudes, is at 158 degrees 2 or 3 minutes of east longitude (meridian of Paris) we may conclude that *Gower's Island*, or *Inattendue*, (which, when Surville took its bearing on the 27th of October, and according to his course from the 26th, was not more than nine or ten degrees west from him), must be more westerly than Mount Lammas by about 27 minutes, and consequently its longitude may be fixed at $157^{\circ} 36'$.

[o] In our chart, N^o III. where our sole object was to compare the observation made by Mr. Shortland in 1788, of the southern coasts of the *Archipelago of the Arfacides*, with the discovery of the same lands made by M. Bougainville in 1768, and Surville in 1769, we have laid down all the points according to the longitudes assigned by Mr. Shortland to those on the south side. These determinations were sufficient for what we then proposed; but now, when the object is to draw up a chart for the use of navigators, we shall regulate every single point, both on the north and south coast, by those determinations, which after examination and discussion, appear to deserve the preference, and as far as may be possible, will reconcile the tracks of Carteret, Bougainville, Surville, and Shortland.

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the island *Inattendue*; its longitude is therefore $154^{\circ} 57'$ east from Paris.

The entrance of *Port Praslin* is in latitude $7^{\circ} 25'$ and $2^{\circ} 04'$ west of *Inattendue*; its longitude therefore is $155^{\circ} 32'$.

The middle of the island *des Contrariétés* is in latitude $9^{\circ} 46'$ and its western coast is 2° east of *Inattendue*; consequently its longitude is $159^{\circ} 36'$.

The most projecting cape of the Great Land to the west of the Island *des Contrariétés*, is carried in the journals to the distance of eleven leagues from it, estimated by the eye, and placed on the same parallel, or only two minutes more south. Its latitude will, therefore, be $9^{\circ} 44'$; and its longitude $159^{\circ} 04'$.

Lastly, the north-east point of the most eastern of *Deliverance Islands* is in latitude $11^{\circ} 01\frac{1}{2}'$, and $0^{\circ} 36'$ east from the western coast of the island *des Contrariétés*, consequently at the longitude of $160^{\circ} 12'$.

The islands called the *Three Sisters*, and *Gulf Island*, will be placed according to the bearings and distance which they have on the chart of Surville's voyage, both with regard to the island *des Contrariétés*, and those of *Deliverance*.

In whatever respects the form of the coasts, the indications of openings, or supposed channels, &c. we shall follow the manuscript charts

charts which accompany the journals ; and to fix the opinion of navigators concerning the degree of exactness to be hoped from them, we will transcribe the note which is written upon the originals. "This chart cannot be expected to be perfect ; it is formed only by means of the bearings taken from a vessel that was sailing along ; nevertheless, the general positions may be relied upon, and the latitudes are marked exactly." The views of the land, together with the journal, will make amends for the unavoidable imperfection of the line traced out for the coast, which is only guessed at, in a manner, when a ship sails at some distance from the shore. We have made an alteration in the part situated to the south of *Gower's Island* or *Inattendue*, from the account of Captain Carteret. As this navigator passed between the island and the main land, he must have known its exact position ; and on his chart he places the western part of his *Carteret's Island*, precisely south of Gower's Island : whereas the bearing of the same points in the French chart is N. N. E. and S. S. W. [P]. The bearings on the English chart deserved the preference, and have had it. The distance between the two points is between nine and ten leagues on both charts.

It remains to fix the positions of the principal points on the southern coasts of the *Archipelago of the Arfacides*, which Mr. Shortland viewed in 1788.

[P] Surville passed six leagues to the north of the extreme northern point of *Inattendue* : the island is about three leagues long, from north to south, and distant nine or ten leagues from the main land ; therefore Surville then saw that land not nearer than at the distance of eighteen or nineteen leagues ; and it is not to be wondered that he could not precisely fix the situation of the island, with respect to the points of a coast which it must have been difficult to discern at all.

P p

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We have already assigned our motives (Page 280) for retrenching 34 minutes from the longitude given by the English navigator to his *Cape Alexander*, which is the most western point of land near M. de Bougainville's *Choiseul Bay*: but as we have no reason to change the relative positions of the other points observed by him, we will preserve their respective differences of meridian as they were established by him: it will only be necessary to retrench 34 minutes from all the longitudes given in his table (p. 200). With respect to the latitudes, they will be admitted exactly as he has given them from his own observations. We will only remark, that the positions on his chart are not always perfectly consistent with those in his table; and we have thought that the latter deserved the preference. The comparison of them will present the following differences, which we report here for the use of such navigators as may not have his journal at hand.

Cape

Cape *Sidney* on Mr. Shortland's chart

compared with his table,		MINUTES.	MINUTES.
is	-	too far South by $1\frac{1}{2}$	-
Cape <i>Phillip</i>	-	North — 3	too far East, by 2
<i>Henslow</i>	-	South — 4	-
<i>Hunter</i>	-	South — 8	West — 5
<i>Marsh</i>	-	—	West — 4
<i>Pitt</i>	-	North — 2	-
<i>Nepean</i>	-	—	West — 2
<i>Deception</i>	-	North — 6	West — 6
Point <i>Pleasant</i>	-	North — 1	West — 1
Cape <i>Satisfaction</i>	-	North — $1\frac{1}{2}$	West — 3
<i>Allen</i>	-	North — 4	-
Point <i>Danger</i>	-	-	West — 3
Cape <i>Alexander</i>	-	North — 3	East — 4
<i>Friendship</i>	-	North — 5	West — 3
<i>Le Gras</i>	-	-	West — 3
<i>Binner</i>	-	-	East — 2

If we add the extreme errors, it will appear that the error in the differences of parallel, between Cape *Hunter* and Cape *Deception*, is 14 minutes; and that the error in the differences of meridian, between Cape *Deception* and Cape *Alexander*, is 10 minutes.

In drawing up the new particular chart for the *Archipelago of the Arfacides* (Pl. VIII.) we have united the discoveries and observations of M. M. *Carteret*, *Bougainville*, *Surville*, and *Shortland*; and we have submitted them to the determinations we have just now

discussed. The discoveries of the French in this part, from the Island *Bouca* to the Islands of *Deliverance*, occupy nearly six degrees of latitude, and eight degrees of longitude; and the line of the *Archipelago of the Arfacides*, in the direction of N. W. $\frac{1}{4}$ W. and S. E. $\frac{1}{4}$ E. is in length 200 French marine leagues of 20 to a degree.

The new general chart of the *Discoveries of the French to the S. E. of New Guinea*, (Plate IX.) comprehends, moreover, on the N. W. and W. the Archipelago of *New Guinea*; on the E. and S. E. *Mendana's Islands of Santa-Cruz*, the Archipelago of *Espiritu Santo* of *Quiros*, and *New Caledonia*; and on the S. W. *Bougainville's Louisiade*, and the N. E. part of *New Holland*, named by Captain Cook, *New South Wales*.

In tracing *New Guinea*, and all the islands depending upon it, we have used the routes of Le Maire and Schouten, in 1616; of Dampier, in 1700; of Captain Carteret, in 1767; and M. de Bougainville, in 1768. Carteret's route referred to the position of the *Port of Cape St. George* has served to trace the southern coasts of *New Ireland* and *New Hanover* in *St. George's Channel*: at the same time M. de Bougainville's route, combined with that of Le Maire and Schouten, gave us the eastern and northern coasts of the same lands, and of the smaller islands belonging to them. Dampier's route, and that of Carteret, have enabled us to figure the south and east coasts of *New Britain*; and, by combining the former with that of Le Maire and Schouten, we have traced the north coast of *New Guinea*, and laid down the small islands, volcanos, and shoals, which are extended along these coasts. The coast, known by the name of the *Geelvink's* coast,

coast, is traced a little at random from the very vague description of it in the *Navigations aux Terres Australes*, by the President de Broffes; in Mr. Dalrymple's *Historical Collection*; and in the *Histoire generale des Voyages*. Finally, the southern part of the same land, M. de Bougainville's *Louisiade*, is traced from the chart inserted in his *Voyage round the World*.

But the groups of small islands, and the detached islands situated to the east of New Ireland, between the fourth parallel and the vicinity of the fifth, require a particular discussion. We have seen in the VIIIth Section of *The Remarks* (p. 261) the previous foundations on which their positions may be established, till they shall have been fixed by certain observations.

Ontong-Java: the latitude of this group, according to Schouten and Le Maire, is $4^{\circ} 45'$; and, according to Abel Tasman, $5^{\circ} 2'$. The mean between these two positions will be $4^{\circ} 53\frac{1}{2}'$, which is the latitude assigned to the group by the *Princesa's* journal, from an observation taken on its south coast.

From a calculation of the routes of Schouten and Le Maire, made for the sake of approximation (p. 264) *Ontong-Java* is 85 leagues, of 20 to a degree, distant from the eastern coast of *New Ireland*; and 120 according to Tasman. The mean between the two is 102 leagues and a half. The latter distance (of 120 leagues) separately taken, would give six degrees for the difference of meridian; but we observe, that in the chart of Tasman's voyage, which is traced upon the

the pavement of the *Town-House* at Amsterdam [Q], this difference is only five degrees, which quantity comes very near to the result of a mean taken between the distances computed in the two voyages ($102\frac{1}{2}$ leagues.) The longitude of the eastern coast of *New Ireland* is 151 degrees, according to that which we have fixed for the Port of Cape St. George [R]: to which if we add five degrees, we shall have 156 degrees east from Paris, for the longitude of *Ontong-Java*.

Schouten and Le Maire, before they reached these islands, had fallen in with a group of three or four other small inhabited islands, in $4^{\circ} 47'$ south latitude; and $42\frac{1}{2}$ leagues, or about two degrees to the east of the former. These islands must then be at the longitude of 158 degrees.

Schouten's *Island of St. John*. Dampier's chart, and that of M. de Bougainville, place this island in four degrees of south latitude; and, according to the French navigator, its difference of meridian, east of *Cape St. George*, is 50 minutes: and as this cape is in the longitude of $150^{\circ} 40'\frac{1}{4}$ [s], *St. John* will be at $151^{\circ} 30'\frac{1}{4}$.

[Q] There is a reduced copy of this chart in the French Collection of Voyages, by *Thevenot*. Vol. I. And in the English Collection of *Harris*, in 1764. Vol. II. p. 325.

[R] The eastern coast of New Guinea is about twenty minutes more east than the Port of *Cape St. George*, which is $150^{\circ} 39'\frac{1}{2}$.

[s] According to Carteret's plan, which contains the port and cape *St. George*, the cape is one minute and $\frac{1}{4}$ more east than that point of the port where *Véron's* observation was made, which, according to him, was $150^{\circ} 39'\frac{1}{2}$.

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The position of the *Island of St. John* gives us that of the *Green Islands*, which, according to the account of Schouten and le Maire, are 20 leagues, or about one degree from it (p. 263). Their longitude will therefore be $152^{\circ} 30' \frac{1}{4}$.

Carteret's *Nine Islands*. The middle of this group, according to that navigator, is situated in latitude $4^{\circ} 36'$, and $1^{\circ} 58'$ east of *Cape St. George* (p. 266). Its longitude will therefore be $152^{\circ} 38' \frac{1}{2}$.

Shortland's *Four Islands*. These are placed, according to him, in the latitude of $4^{\circ} 50'$, and longitude $153^{\circ} 16'$, after deducting 34 minutes which are to be subtracted from Mr. Shortland's longitude for the reasons above assigned (p. 200, and 281).

Carteret's *Sir Charles Hardy's Island*. It is noticed in his journal as situated N. $\frac{1}{4}$ N. W, distant about 10 leagues, from *Lord Anson's Island*, the *Bouca* of Bougainville. It is therefore less south than the latter, by 29 minutes and a half, and less east by about six minutes. Consequently, as *Bouca* is in the latitude of $5^{\circ} 07' \frac{1}{2}$, and longitude $152^{\circ} 12'$, *Sir Charles Hardy's Island* will be in latitude $4^{\circ} 38'$, and longitude $152^{\circ} 06'$.

After employing all that we could obtain from the journals of *Schouten* and *Le Maire*, *Tasman*, *Dampier*, *Carteret*, and *Bougainville*, in tracing *New Ireland*, *New Britain*, and *New Guinea*, we have borrowed the rest from some ancient Dutch, Spanish, and other charts; excepting the part about *Cape Walsh* in *New Guinea*, the position of which was fixed by Captain Cook, and was accordingly taken from his journal and charts.

All the points of *New South Wales* are regulated according to Captain Cook's observations, and figured from the charts of that coast which accompany the account of his first voyage.

Lastly, Mendana's isles of *Santa-Cruz*, which Captain Carteret has called *Queen Charlotte's Islands*, have been placed in a different longitude from that assigned to them by the latter navigator, because it has appeared that by referring them, according to his corrected course, to the position of the *Port of Cape St. George*, the longitude of which has been established by observation, we could obtain a more exact determination. According to his calculation, the *Volcano*, situated to the north of his *Egmont's Island*, is $164^{\circ} 00'$ east from Greenwich, or $161^{\circ} 40'$ east from Paris; and the *Port of Cape St. George* $152^{\circ} 18'$ from the former, or $149^{\circ} 58'$ from the latter; their difference of meridian is then, from the result of his course, $11^{\circ} 42'$. To correct his reckoning, we must suppose the errors in it to have been proportional: and as from *Gower's Island* or *Inattendue*, to the *Port of Cape St. George*, we must increase the difference of meridian 19 minutes above what Carteret made it by his reckoning; we must add the proportional quantity of 11 minutes, to the difference between the *Volcano* of *Santa-Cruz* and *Gower's Island*, and the total difference between this *Volcano* and the *Port of Cape St. George* will be increased 30 minutes. Adding this quantity to $11^{\circ} 42'$ the difference deduced by Carteret, we shall have $12^{\circ} 12'$ for the corrected difference, which must be added to $150^{\circ} 39'\frac{1}{2}$, (the longitude of the *Port of Cape St. George*) and it will give us $162^{\circ} 51'\frac{1}{2}$ east from Paris, for the longitude of the *Volcano* of *Santa-Cruz*: or $165^{\circ} 11'\frac{1}{2}$ east from Greenwich.

The longitudes of all the other points of *Queen Charlotte's Islands*, (or Mendana's Isles of *Santa-Cruz*) will be similarly augmented 30 minutes; and their latitudes will be preserved, as they were determined by Captain Carteret.

When we compare the longitudes above-established with those which the different navigators, who visited the islands south-east of New Guinea, have assigned from their reckonings, we find the following differences.

Captain Carteret had placed the *Volcano of Santa-Cruz* at $161^{\circ} 40'$ east from Paris, and the *Port of Cape St. George* in *New Ireland* at $149^{\circ} 58'$: thus, comparing them with our determinations, both were carried too far westward: the former by $1^{\circ} 11'$, the latter by $41\frac{1}{2}'$; and the reckonings had given their difference of meridian too little by only 30 minutes, or about 10 leagues, an error very inconsiderable in a track of 12 degrees, or nearly 240 leagues, through a sea where it is very common to under-rate the actual way of the ship, because it is difficult to estimate with precision what must be allowed for the effect of the general current; which, as it sets constantly to the west, must necessarily increase the progress of a ship in longitude, when she is sailing in that direction. The absolute longitude of *Gower's Island*, as Carteret reckoned it, was too far west, that is one degree too little, if we take the *Port of Cape St. George* for our fixed point: and the difference of meridian, as referred to that port, was too small by 18 or 20 minutes.

M. de Bougainville had placed *Aurora Island* in the Archipelago of *Espiritu Santo*, at $166^{\circ} 47' \frac{1}{2}$, which is too far east by $54' \frac{1}{2}$; and the *Port of Cape St. George* at $149^{\circ} 52' \frac{1}{2}$, too far west by 47 minutes. Thus the difference of meridian between *Aurora Island* and the *Port of Cape St. George*, upon his charts, is too great by $1^{\circ} 41' \frac{1}{2}$, or about 33 leagues. It appears that M. de Bougainville, contrary to the English navigator, has over-rated his way from *Espiritu Santo* to *New Ireland*, which comprehends nearly 15 degrees and $\frac{1}{4}$ of longitude, or about 300 leagues. The error which he committed in this respect, arises partly from the circumstances of his navigation. As he was obliged to struggle sixteen days against winds directly adverse to his course, in order to beat up the south coast of the land which he called *Louisiade*, it is very probable that his progress eastward was less than it appeared to be; because the general effect of the current being combined with that of the way lost in an oblique course, his vessel must have been carried westward, and yet the retrograde motion must have been imperceptible: this effect would take place the more, because he was opposite to a great strait, that of the *Endeavour*, where the sea, from being confined within the lands, must acquire an increased velocity.

Surville placed his island *Inattendue* (Carteret's *Gower's Island*) at 156 degrees, in his chart; that is $1^{\circ} 36'$ more west than our determination. He had taken his departure from *Grafton Island*, one of the *Bashees*, which he supposed to be at $119^{\circ} 28'$, and in the intermediate space had not had any means of ascertaining his longitude. If this island is situated at $118^{\circ} 40'$, (as it is marked in the *Con-*
noissance

noissance des Temps of 1791, page 357) Surville had set out with an error of 48 minutes to the east; and as that of his longitude, on arriving at *Inattendue*, is $1^{\circ} 36'$, west, it follows that the whole error of his passage across was $2^{\circ} 24'$ west.

In the chart prepared in 1785, for the voyage of M. de la Pérouse, of which we have given a fragment in Plate I. they had placed

Aurora Island at $165^{\circ} 53'$, its true position: the *Volcano* of *Santa Cruz* at $161^{\circ} 40'$ from Carteret, too far west by $1^{\circ} 11' \frac{1}{2}$. *Gower's Island*, or *Inattendue*, at $156^{\circ} 38'$, too far west by $58'$: and the *Port of Cape St. George* at 150° , too far west by $39' \frac{1}{2}$.

In the particular chart of the Land of the *Arsacides*, regulated according to Mr. Shortland's observations, which we have given in Plate III, *Cape Alexander*, or the western coast of the lands at *Cape Choiseul*, is placed at $154^{\circ} 20'$, too far east by $34'$: the island *Inattendue*, on its western coast, at $158^{\circ} 15'$, too far east by $39'$: thus the difference of meridian between the island *Inattendue* and *Choiseul Bay* is too great by $5'$.

The new general chart of *the Discoveries of the French to the South-East of New Guinea*, has been regulated, as well as the new particular *Chart of the Archipelago of the Arsacides*, by the determinations discussed and fixed in this analysis, and collected in the following table.

DISCOVERIES TO THE

TABLE of the LATITUDES and LONGITUDES of the most remarkable Points of the Islands which are situated to the East and South-East of NEW GUINEA, to serve for drawing up the Chart of the Discoveries of the French in these Parts.

N. B. All the Longitudes are referred to that of *Aurora Island* in the Archipelago of *Espiritu Santo*, or to that of the *Port of Cape St. George* in New Ireland, determined by observation: and to fix the respective differences of meridian, the routes of the different Navigators have been employed. The Latitudes were observed in sight of those points the position of which is given.

B. marks that use was made of the route and observations of *M. de Bougainville*.

C. of Captain *Carteret*.

S. of *Surville*.

C. K. of Captain *Cook*.

S. H. of Mr. *Shortland*; with the corrections explained in the analysis.

* Position fixed by astronomical observations, or by time-keepers.

NAMES OF PLACES.	South Latitude.		LONGITUDE.			
			East from Paris.		E. from Greenwich	
	D.	M.	D.	M.	D.	M.
NEW IRELAND.						
The Port of Cape St. George, on the south coast near the river	4.	49 $\frac{2}{3}$	*	150. 39 $\frac{1}{2}$	*	152. 59 $\frac{1}{2}$
Cape St. George	4.	53 $\frac{1}{6}$	C.	150. 40 $\frac{1}{4}$	C.	153. 00 $\frac{3}{4}$
Isle of St. John of Schouten, or Bournand of Bougainville	4.	00	B.C.	151. 30 $\frac{3}{4}$	B.C.	153. 50 $\frac{3}{4}$
ARCHIPELAGO OF SOLOMON'S ISLANDS, Surville's Isles of the Arfacides.						
Sir Charles Hardy's Island	4.	38	C.	152. 06	C.	154. 26
Bouca, or Lord Anson's Island, at its northern point	5.	07 $\frac{1}{2}$	B.	152. 12	B.	154. 32
L'Averdi Islet, at the north point of Bougainville's Island	5.	31 $\frac{1}{4}$	B.	152. 29 $\frac{1}{2}$	B.	154. 49 $\frac{1}{2}$
Western Coast of Choiseul Bay, or Cape Alexander	6.	45	B.	153. 46	B.	156. 06
Première vue Island, in the middle	7.	15 $\frac{1}{2}$	S.	154. 57	S.	157. 17
Port Praslin, at its entrance	7.	25	S.	155. 32	S.	157. 52
Gower's Island of Carteret, } on its S. side or Surville's Inattendue } on its W. side	8.	00	C.	- - -	- - -	- - -
Baxos de la Candelaria, at their south-west point	6.	45	- - -	157. 36	C.	159. 56
				157. 45		160. 05

SOUTH-EAST OF NEW GUINEA.

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NAMES OF PLACES.	South Latitude.		LONGITUDE.			
			East from Paris.		E. from Greenwich.	
	D.	M.	D.	M.	D.	M.
Island des Contrariétés <i>{ in the middle</i>	9.	46	-	-	-	-
Cape of the main Land, <i>{ on the west coast</i>	-	-	159.	36	161.	56
Most easterly of the Deliverance Islands,	9.	44	159.	04	161.	24
<i>at its north-east point</i>	11.	01 $\frac{1}{2}$	160.	12	162.	32
Cape Sidney	10.	48	158.	47	161.	07
Cape Phillip	10.	34	158.	31	160.	51
Cape Henslow	10.	00	158.	18	160.	38
Cape Hunter	9.	42	157.	43	160.	03
Cape Marsh	9.	21	156.	36	158.	56
Cape Pitt	8.	55	156.	09	158.	29
Cape Nepean	8.	51	155.	16	157.	36
Cape Deception	8.	33	154.	43	157.	03
Hammond's Island *	8.	46	154.	45	157.	05
Point Pleasant	8.	50	154.	56	157.	16
Cape Satisfaction	8.	09	154.	12	156.	32
Eddystone	8.	12	154.	14	156.	34
Bougainville's Strait	6.	50	153.	40	156.	00
Green Islands, of Schouten and Le Maire	4.	53 $\frac{1}{2}$	152.	30 $\frac{3}{4}$	154.	50 $\frac{1}{2}$
Nine Islands, of Carteret	4.	36	152.	38 $\frac{1}{2}$	154.	58 $\frac{1}{2}$
Four Islands, of Shortland	4.	50	153.	16	155.	36
Ontong-Java	4.	53 $\frac{1}{2}$	156.	00	158.	20
Three or Four inhabited Islands, seen by Schouten	4.	47	158.	00	160.	20
LOUISIADE OF BOUGAINVILLE.						
Diana's Shoal, in the middle	15.	45	148.	45	151.	05
Middle Point between the two W. Shoals	15.	29	146.	15	148.	35
Cul-de-sac de l'Orangerie, at the great islet on the west	10.	01	147.	04	149.	24
Cape Deliverance	11.	45	152.	17	154.	37
MENDANA'S ISLE OF SANTA-CRUZ, OR Queen Charlotte's Islands of Carteret.						
Volcano Island, north of Santa-Cruz	10.	18	162.	51 $\frac{1}{2}$	165.	11 $\frac{1}{2}$
Cape Trevanion, at the most north western point	10.	39	162.	32	164.	52
Cape Byron, north-east point	10.	42	163.	23 $\frac{1}{2}$	165.	43 $\frac{1}{2}$
Swallow Island, middle of its north-east point	10.	00	164.	01	166.	21
New Alderney Island at its north point	11.	05 $\frac{1}{2}$	163.	59 $\frac{1}{2}$	166.	19 $\frac{1}{2}$

* The chart which is annexed to Mr. Shortland's Journal differs from the table he has given, 5 minutes in the difference of parallel between Cape Deception and Point Pleasant, and 5 minutes in their difference of meridian, (p. 290). As we used the quantities assigned in the table, we have been obliged to make a little change in the situation of Hammond's Islands, with respect to these two capes: in consequence of which the latitude of the table refers to the south point of the most westerly islands, and its longitude to their west coast.

DISCOVERIES TO THE

NAMES OF PLACES.	South Latitude.	LONGITUDE.	
		East from Paris.	E. from Greenwich.
<i>Archipelago of Espiritu Santo of Quiros, Great Cyclades of Bougainville, New Hebrides of Cook.</i>			
	D. M.	D. M.	D. M.
Aurora Island { <i>North point</i> - -	14. 52	165. 53	168. 13
{ <i>South point</i> - -	15. 24	166. 00 $\frac{3}{4}$	168. 20 $\frac{3}{4}$
Isle of Lepers { <i>North-east point</i> - -	15. 16 $\frac{3}{4}$	165. 50 $\frac{3}{4}$	168. 10 $\frac{1}{4}$
{ <i>South-west point</i> - -	15. 30	165. 25 $\frac{1}{2}$	167. 45 $\frac{1}{2}$
Whitsuntide Island { <i>North point</i> - -	15. 28 $\frac{1}{2}$	166. 01 $\frac{1}{2}$	168. 21 $\frac{1}{2}$
{ <i>South point</i> - -	16. 00 $\frac{1}{4}$	165. 59	168. 19
Ambrym - - - { <i>North-east point</i> - -	16. 04	166. 01 $\frac{1}{4}$	168. 21 $\frac{1}{4}$
{ <i>West point</i> - -	16. 15	165. 43 $\frac{1}{2}$	168. 03 $\frac{1}{2}$
Paoom - - - -	16. 30	166. 08 $\frac{3}{4}$	168. 28 $\frac{3}{4}$
Apee - - - - { <i>South-east point</i> - -	16. 53 $\frac{1}{2}$	166. 17	168. 37
{ <i>North-west point</i> - -	16. 39	165. 58	168. 18
Shepherd's Islands - - - - -	from 16. 52	from 166. 21 $\frac{1}{4}$	from 168. 41 $\frac{1}{4}$
	to 17. 03 $\frac{1}{2}$	C.K. to 166. 23 $\frac{1}{2}$	C.K. to 168. 43 $\frac{1}{2}$
	from 17. 29	from 166. 00 $\frac{1}{2}$	from 168. 20 $\frac{1}{2}$
Sandwich Island - - - - -	to 17. 53	to 166. 25 $\frac{1}{4}$	to 168. 45 $\frac{1}{4}$
Hinchinbrook Island - - - - -	17. 25	166. 18	168. 38
	from 18. 36 $\frac{1}{2}$	from 166. 49	from 169. 09
Erromango - - - - -	to 18. 56 $\frac{1}{2}$	to 167. 08	to 169. 28
	from 19. 16 $\frac{1}{2}$	from 167. 01	from 169. 21
Tanna - - - - -	to 19. 38 $\frac{1}{2}$	to 167. 23	to 169. 43
Port Resolution in Tanna - - - -	19. 32 $\frac{2}{5}$	* 167. 24 $\frac{3}{5}$	* 169. 44 $\frac{3}{5}$
Immer Island, in the middle - - - -	19. 16	* 167. 26	* 169. 46
Erronan, or Footoona - - - - -	19. 31	168. 01	170. 21
Enatum, or Annatom - - - - -	20. 10	167. 44	170. 04
	from 15. 53	C.K. from 164. 59 $\frac{1}{2}$	C.K. from 167. 19 $\frac{1}{2}$
Manicollo, or Mallicolo - - - - -	to 16. 38	to 165. 39	to 167. 59
Port Sandwich, south-east point of Manicollo - - - - -	16. 24 $\frac{1}{2}$	* 165. 37 $\frac{1}{4}$	* 167. 57 $\frac{1}{4}$
St. Bartholomew Island - - - - -	15. 42	* 164. 57 $\frac{1}{2}$	* 167. 17 $\frac{1}{2}$
Cape Quiros of Tierra del Espiritu Santo	14. 56	C.K. 165. 00	C.K. 167. 20
Cape Cumberland of ditto - - - - -	14. 39 $\frac{1}{2}$	164. 27	166. 47
NEW CALEDONIA, of Cook.			
Pudiyoua, or Observatory Island - -	20. 18 $\frac{1}{2}$	* 162. 21 $\frac{1}{5}$	* 164. 41 $\frac{1}{5}$

SOUTH-EAST OF NEW GUINEA.

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NAMES OF PLACES.	South Latitude.	LONGITUDE.			
		East from Paris.		E. from Greenwich.	
	D. M.	D. M.		D. M.	
Ballabea Island - - - - -	20. 07	162. 02	C.K.	164. 22	C.K.
Cape Colnett - - - - -	20. 30	162. 36		164. 56	
Cape Coronation - - - - -	22. 05	164. 48		167. 08	
Queen Charlotte's Point, south-east of the Great Island - - - - -	22. 15	164. 52 $\frac{3}{4}$		167. 12 $\frac{3}{4}$	
Isle of Pines - - - - -	22. 38	165. 18		167. 38	
Botany Island - - - - -	22. 26 $\frac{2}{3}$	164. 56 $\frac{3}{4}$		167. 16 $\frac{3}{4}$	
East Coast of New HOLLAND, Or New South Wales. Discovered by Cook.					
Cape Gloucester - - - - -	19. 59	145. 51	C.K.	148. 11	C.K.
Cape Sandwich - - - - -	18. 21	143. 54		146. 14	
Cape Grafton, at its north-east point - -	16. 57	143. 34		145. 54	
Cape Tribulation - - - - -	16. 09	143. 07		145. 27	
Cape Flattery, at its north point - - -	14. 56	142. 57		145. 17	
Cape Grenville, at its north point - - -	11. 58	140. 05		142. 25	
Cape York { at its north point - - - - -	10. 37	139. 16	C.K.	141. 36	C.K.
{ at its east point - - - - -	10. 42				
Prince of Wales's Island, north east ex- tremity - - - - -	10. 09	138. 20		140. 40	
NEW GUINEA.					
Cape Walfsh - - - - -	8. 22	134. 42	C.K.	137. 02	C.K.

NEW

NEW DETERMINATION of the LONGITUDE of PORT PRASLIN (or the Port of CAPE ST. GEORGE) by the Eclipse of the Sun which M. VÉRON observed in that Place, on the 13th of July, 1768.

By M. MÉCHAIN,

Astronomical Hydrographer to the Navy, and Member of the Royal Academy of Sciences at Paris.

THIS Eclipse was not visible in Europe, and we could not use the observations made by M. Véron at the *Port of St. George*, to ascertain the longitude of that place, except to compare the conjunction resulting from those observations with that which has been calculated at Paris by the tables; which M. de la Lande performed in 1771, using the tables in the second edition of his *Astronomy*. But as the new tables of the sun, drawn up by M. de Lambre, and those of the moon, rectified by M. Mazon, are much more exact, it was to be hoped that the time of the conjunction, and consequently the longitude of *Cape St. George*, might be obtained with more precision than by the tables which M. de la Lande could employ in 1771. Our calculations differ therefore from his in this point; they differ again from our having determined anew the true time of M. Véron's observations from the correspondent altitudes of the sun observed by that astronomer, on the day of the Eclipse, and the day following, to regulate the going of his clock. These data have been drawn from M. Véron's original manuscripts, which M.

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de la Lande did not receive till his calculations were made and published, and which he kindly communicated to us. We find also in these manuscripts, two meridian altitudes of the sun, observed on the 12th and 14th of July, from which we have concluded the latitude of the *Port of Cape St. George* to be $4^{\circ} 49' 40''$ south, making allowance for the error of the quadrant, which M. Véron determined by observing the horizon both in the erect and inverted positions of his instrument.

The following are the principles of the new calculations. The tables of the sun and moon which we have used, will appear in the third edition of M. de la Lande's *Astronomy*, which will soon be published. The parallaxes of longitude and latitude are calculated on the supposition that the proportion of the axes of the earth is that of 299 to 300, as M. de la Lande has made it in his tables, in consequence of his new researches concerning the horizontal parallax of the moon, and the proportion of that parallax to the moon's diameter. Upon this hypothesis of the flattening of the earth, the latitude of the *Port of Cape St. George*, diminished by the angle of the vertical with the radius of the earth, is $4^{\circ} 7' 4''$.

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True

	Beginning of the Eclipse.			End of the Eclipse.		
True time of the two observations - - - -	22 ^h	51'	02"	0 ^h	28'	11",7
Equation of time - - - - -	+	5	19,5	+	5	20,0
Supposed difference of meridians - - - -	10	02	40,0	10	02	40,0
Mean time at Paris - - - - -	12	53	41,5	14	30	51,7
True longitude of the sun } by the tables {	111°	57'	08",2	112°	01'	00",0
True longitude of the moon } {	111	22	46,3	112	17	21,0
True latitude of the moon } {	South	49	41,0	South	54	39,4
Longitude of the Nonagesimal degree - - -	97	19	07,0	124	11	59,0
Altitude of the Nonagesimal degree - - -	61	53	58,0	65	19	33,0
Difference of the horizontal parallaxes of the sun and moon - - - - -	0	57	38,8	0	57	36,6
Parallax of longitude - - - - -	+	12	31,1	+	10	58,1
Parallax of latitude - - - - -	0	26	49,5	0	23	35,1
Apparent longitude of the moon from the sun	111	35	18,4	112	06	22,9
Difference of apparent longitudes - - - -	0	21	49,8	0	05	22,9
Apparent latitude of the moon south from the sun - - - - -	0	22	51,5	0	31	04,3
Semi-diameter of the sun diminished by 2" 5 for the effect of the irradiation - - - -	0	15	43,4	0	15	43,4
Apparent semi-diameter of the moon, dimi- nished by 2" 5 for the effect of the inflec- tion of the solar rays - - - - -	0	15	56,6	0	15	56,5
Sum of the apparent semi-diameters - - -	0	31	40,0	0	31	39,9

The apparent relative motion in longitude, during the continu-
ance of the eclipse, is $27' 12'',7$; in latitude, $8' 12'',8$, whence we
conclude the apparent inclination of the orbit to be $16^\circ 47' 45''$, and
the motion upon this orbit $28' 25'',4$. Then, with this motion,
the sum of the semidiameters at the beginning of the eclipse, and
at the end, we find the angles of the line of the centres with the
ecliptic to be $46^\circ 32' 17''\frac{1}{2}$ and $80^\circ 7' 47''\frac{1}{2}$; the distances at the
apparent conjunction, $21' 47'',0$, and $5' 25'',7$; the apparent lati-
tudes of the moon from the sun $22' 59'',1$, and $31' 11'',9$; therefore
the error of the tables in latitude $7'',6$: and as this error is within
the limits of the ordinary precision of tables, it appears that the
duration of the eclipse was well observed. Adding the parallaxes of
longitude to the distances at the apparent conjunction, we have the
difference

difference of the true longitudes of the sun and moon, $34' 19''$, for the beginning of the eclipse, and $16' 23''$, 8 for the end, whence we deduce the true conjunction at the

Port of Cape St. George - - - - $23^h 56' 47''$ true time.

But the tables give this same con-

junction at Paris at - - - - $13^h 54' 09''$

Therefore the difference of the meridians is $10^h 02' 38''$

Or the east longitude of the *Port of*

Cape St. George is - - - - $150^{\circ} 39' 30''$

This result is 7 minutes of a degree less than that of M. de la Lande.

EXTRACT from the Registers of the ROYAL ACADEMY of
SCIENCES, April 20, 1782.

MM. le Monnier and Pingré, commissioners named by the Academy to examine a memoir by M. Buache, on the *geographical situation of the Islands of Solomon*, having made their report, the Academy has judged this work worthy of appearing with their privilege.

I certify that the present extract is conformable to the judgment of the Academy.

(Signed) DE CONDORCET.

PARIS, MARCH 29, 1790.

APPENDIX.

EXTRACT FROM A MEMOIR

CONCERNING

THE EXISTENCE AND SITUATION OF

SOLOMON'S ISLANDS,

PRESENTED TO

THE ROYAL ACADEMY OF SCIENCES, JAN. 9, 1781.

BY M. B U A C H E.

(See Chart XII.)

THE Voyages of modern navigators, at the same time that they have furnished so much knowledge of the South Sea, have given rise to doubts respecting the existence of *Solomon's Islands*; and several geographers have already been anxious to expunge them from their charts, and remove them to the class of fabulous Lands. It was for some time rather usual to deny the existence of every country, which

which was not found at the place assigned to it by the charts ; while on the other hand, all those lands which were found in tracts of sea where there were not any marked in the charts, were considered as new discoveries. The more enlightened navigators of the present time, when their researches prove unsuccessful, draw no other conclusion, than that the lands they are unable to find have been ill placed upon their geographical charts ; and, before they give a new name to any island that does not appear there, consider attentively all those that appear in the same tracts and at the same latitudes. In the present case, to be qualified to deny the existence of *Solomon's Islands* with any reason, it would be necessary to have sought them in all the situations which different authors have assigned, which has not yet been done. I have examined this point of geography with attention ; and it has appeared to me, that to any one who has not made a vow of scepticism, the existence of these islands is sufficiently demonstrated by the accounts of Mendana's voyages. I have also thought that, with the knowledge we now have of the South Sea, we may be able to ascertain their position more precisely, and make them easier to be found by other navigators.

The circumstantial particulars of the discovery of Solomon's Islands, as related by *Figueroa*, cannot be regarded as romance ; they contain nothing marvellous, nor inconsistent with things actually known, but a simple narrative of fact. The relation of *Mendana's* second voyage is alone sufficient to establish the reality of this discovery. We see from the first, that this voyage was not undertaken, like the former, to make discoveries at random, but to return to a place already known, and establish a colony in it : the fleet was, consequently,

quently, provided with every thing necessary for such an expedition; 368 persons, chiefly married, were embarked in it; their course was directed to the particular object in view; and they crossed the sea between the 8th and 12th degrees of south latitude, in consequence of their previous knowledge of the situation of the places. When they arrived at the island of *Santa-Cruz*, Mendana no sooner saw the inhabitants, than he declared to his crew, that these were the people he sought.

After the death of Mendana, his widow, who succeeded him in the command of the fleet, when they quitted *Santa-Cruz*, was desirous to seek the island of *St. Christopher*, the most eastern of Solomon's Islands, and steered W. S. W; but after the second day, as this island did not appear, she changed her course and bore to the north for Manilla. It was, without doubt, upon Mendana's instructions that she directed this search; and by the short time she employed, it is evident how near that navigator had supposed them.

Mendana's chief Pilot, *Fernand Quiros*, could not bring himself to relinquish his commander's researches, and regretted the proposal of sailing for Manilla. He was convinced of the existence of Solomon's Islands, and from this moment the discovery of them became the reigning object of his wishes: he returned speedily to Peru, presented no less than eight memorials to the Viceroy, and employed his solicitations so effectually, that at length he obtained his desire. When he left Callao, the port of Lima, on Dec. 21, 1605, he appointed the island of *Santa-Cruz* as the place of rendezvous for the vessels with him, which sufficiently points out the object of his

voyage.

voyage. Knowing the distance of this island from the coast of Peru, and desirous to employ his intermediate way to the best advantage, he did not take the direct course which he had gone with Mendana in his first voyage, but proceeded southwards as far as the 25th degree of latitude. After discovering a long chain of small islands, most of which have since been re-discovered, he returned to the latitude of *Santa-Cruz*. At *Taumago* he learned from the inhabitants, that they knew of many islands in their neighbourhood; and advancing again to the southward, discovered the land which he named *Tierra Austral del Espiritu Santo*. When he left this island he met with violent and contrary winds in the open sea, by which one of his ships was separated from him; he therefore resolved to steer up for the island of *Santa-Cruz*, where the rendezvous was appointed: but when he came into this latitude he was unable to find *Santa-Cruz*, constantly losing way more and more, says Figueroa, by the force of the wind. Seeing how difficult it was to make this island, and thinking it would be impossible to beat back again, he gave up his design and steered for Mexico.

Such are the principal considerations which move us to believe the existence of *Solomon's Islands*. If we observe further, that most of Mendana's and Quiros's discoveries have been confirmed by modern navigators, we cannot well doubt of this. But if these islands exist, why so many voyages undertaken to find them? have these been fruitless? The answer to this objection will be found in that very situation of the islands which it is my present object to ascertain. We may observe, in the mean while, that Quiros could not find them

them because he could not make the island of *Santa-Cruz*, which he sought on the north and north-east of the *Tierra Austral*; whereas it is on the north-west of it, according to the observations of modern navigators. Carteret and Byron did not find them, because they made the search only in the places pointed out by modern charts. Byron observes, that having advanced to ten degrees west of the position assigned to them by the French chart of the South Sea, he thought it necessary to abandon the search: he adds, that this situation is not founded upon any authority; and that he much doubts whether the celebrated navigator who made the discovery, has left sufficient information for them ever to be found again. Carteret, in like manner observes, that he had advanced far beyond the situation attributed to them; and that, having arrived at the island of *Santa-Cruz*, which he re-discovered, he gave up the attempt.

If these navigators could have consulted the narratives of Mendana's voyages, it is probable they would not so hastily have relinquished their researches. These accounts give us, in the first place, the latitudes of many of the *Islands of Solomon*; and in this respect we know, that the errors to be apprehended are very inconsiderable, seldom more than half a degree: they give us, secondly, the distance of these islands from the coast of *Peru*, by comparing which with the time of their intermediate way, particularly in Mendana's second voyage, which was in a more direct course, and on the same parallel with these islands, we may deduce their longitude, at least within a very few degrees. Before we undertake to ascertain this point, we must enquire why geographers are so little agreed about the position

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of

of these islands, and why there is the difference of more than a thousand leagues in the situations assigned by them.

The first charts which represent the *Islands of Solomon*, all agree in placing them to the east of New Guinea, and at no great distance from it: they are thus situated on a chart published by *Theodore de Bry*, in 1596, the same year that Mendana arrived at Manilla, after his second expedition: the same position appears in a chart published by *Witfliet*, in 1597; in the charts belonging to *Herrera's* History of the West Indies; in an ancient Portuguese chart of the East Indies, inserted in *Thevenot's* curious collection of voyages; in the charts of *Ortelius* published in 1589; and, in general, in all the charts which preceded those of the *Arcano del Mare*, published by *Robert Dudley*, in 1646.

Dudley then transposed the *Islands of Solomon* to the situation of the *Marquesas de Mendoza*, making but one group of the two sets of islands. On the chart where they appear, which is the 23d of Asia, he explains his opinion, and the authorities he consulted in the following note. “*The Islands of Solomon, discovered by Alvarez de Mendana, in 1580, were found at 800 Spanish leagues west from Lima; nevertheless the ordinary charts place them at 1800 leagues, but very falsely.*”

Dudley's opinion was adopted by many geographers; and among others, by *Delisle*, as appears in his first charts, and on his terrestrial globe, published in 1700. *Delisle* was certainly induced, rather by the reputation of its author than by any profound reflection, to embrace this opinion: we find him renouncing it in 1714, when he published

published his southern hemisphere: he then placed the *Islands of Solomon* at 1635 Spanish leagues, and 205 degrees of longitude, east from the meridian of Ferro. Six years after, when he published his Map of the World, and a Memoir [A] *on the Situation and Extent of different Parts of the Earth*, he approached still nearer to the position indicated in the early charts. He there places *Solomon's Islands* in 190 degrees of longitude; and in his Memoir he says, that he has determined the situation of the southern lands, and of the islands of the South Sea, by the journals of the discoveries, and by tracing their voyages. This method was the result of reflection, and accordingly has been most followed since 1720.

M. Bellin had placed these islands in 195 degrees of longitude, on his *Chart of the known Parts of the Globe*, as well as on that of the South Sea, published in 1741; and in his *Observations on the Construction of the latter Chart*, we find his motives for so doing.

In 1756, he corrected his chart of the South Sea; and then removed the *Islands of Solomon* to 205 degrees, or ten degrees further eastward. His opinion was adopted by *Mr. Green* in his great chart of America.

M. Danville had taken a mean between the positions adopted by other geographers, and had placed the *Islands of Solomon* at 200 degrees; but when he established the new discoveries in the South Sea, upon his Map of the World, he thought it necessary to suppress

[A] *Memoirs of the Academy of Sciences*; 1720.

the old ones, and the *Islands of Solomon* no longer appear upon his map.

In 1767, *M. Pingré*, of the Royal Academy of Sciences, on the occasion of the transit of Venus, gave us some very interesting researches into the position of the islands in the South Sea, and placed the *Islands of Solomon* near 210 degrees.

We are also obliged to Mr. *Dalrymple* for very curious researches concerning the ancient voyages in the South Sea, made by the Spanish and the Dutch. This learned man, well known for the zeal with which he promotes the progress of geography and navigation, and for his labours in those branches of Science, has particularly studied every thing that relates to the *Islands of Solomon*, and has published a dissertation on the subject. He perceived that they ought to be placed near New Guinea, and a greater distance from Peru than was indicated in any of the charts; but his patriotic zeal betrayed him into an error of another kind: he has transposed the *Islands of Solomon* to the situation of those known by the name of *New Britain*, and situated between the 2d and the 6th degree of S. latitude; whereas the observations made in Mendana's voyage place them between the 7th and the 12th degree.

By this summary we perceive how much geographers have differed about the situation of *Solomon's Islands*, and how many situations they have assigned for them. To attain the truth in a matter so obscure, the best way is to examine the original authors who were consulted

sulted by those geographers ; and I will therefore briefly report what the chief of these have written on the subject.

Acosta, in his natural and moral History of the Indies (Book I. p. 6, and 15) says, at first, that the *Islands of Solomon* are 800 leagues from Peru ; and in two other passages where he speaks again of these islands, he says, *it is a well-founded opinion that they should be placed near New Guinea*, or at least in the neighbourhood of a continent. He makes no mention of their latitude.

Herrera, in his description of the West Indies (ch. 27) tells us, in like manner, that *Solomon's Islands* are 800 leagues from Peru ; and further on he adds, that they are situated between the 7th and the 12th degree of south latitude, and 1500 leagues from the *City of Kings*, or *Lima* : he says, moreover, that they are probably contiguous to *New Guinea*.

Lopez Vaz (*Purchas's Pilgrimes*, Vol. IV. B. VII. Ch. II.) reports, that Mendana met with some islands in 11 degrees of south latitude, and 800 leagues from Lima ; and eleven large islands between the 9th and 12th degree of south latitude.

Ovalle, in his History of Chili, says, that *Solomon's Islands* are about 7500 miles west from Peru, and that they extend from the 7th to the 12th degree of latitude.

Quiros, in one of the memorials he presented to the Viceroy of Peru, asserts that, according to the testimony of Mendana, the *Islands*
of

of *Solomon* are 1500 leagues from the coast of *Lima*, and extend from the 7th to the 12th degree of latitude.

According to *Figueroa*, who has given the most circumstantial account of *Mendana's* discoveries, the distance from *Lima* to *Candlemas Shoals*, whence the *Islands of Solomon* were first descried, is about 1610 leagues; their latitude, between 7 and 12 degrees: and that from *Lima* to the isle of *Santa-Cruz*, it is 1850 leagues.

Lastly, in a manuscript belonging to the Viceroy of Peru, which *Richard Hawkins* professes to have seen, *Solomon's Islands* are placed on the same parallel as *Santa*, (9 degrees S.) and at the distance of about 2500 leagues west.

To the authority of all these Spanish authors we will join also that of *Cornelius Witfliet* of *Louvain*, who, in 1603, published a curious account of the West Indies. The expressions of this author are remarkable, and testify a considerable accuracy of information; “on the right [B], and near *Guinea*, are the islands of *Solomon*, of vast extent and very numerous, discovered not long ago by *Alvaro de Mendana*. This navigator sailed from the port of *Lima* in *Peru*, in search of new and unknown lands; and after a voyage of three months, with regular

[B] *Guineæ a dextris adhærent Salomoniarum Insulæ, multæ, et vastæ, quæ navigatione Alvari Mendanii nuper inclaruere. Mendanius namque studio inquirendi novi et incogniti cæli regiones, cum ex Limano Peruvienſi Portu solviſſet, perpetuis provectus Euris, poſt trium menſium navigationem ad inſulas hæc delatus, Salmonias, ex libito potius quam certâ aliâ de cauſâ nominavit.*

winds

winds from the south-east, fell in with these islands, which he named the Islands of Solomon, rather casually and fancifully, than for any particular reason." In speaking of the charts inserted in his work, *Witfliet* informs us that, for the known parts of the globe he has followed the common maps, but for every thing else he has had recourse to the newest charts and narratives.

Such are the principal authorities which can be cited to establish the position of *Solomon's Islands*. We find enormous differences in these, as well as on the maps, in the distance of these islands from the coast of Peru. There are even contradictions in the most respectable authors, as *Acosta* and *Herrera*; but by bringing these opinions together and comparing them with each other, it is easy to perceive which are the best founded and most deserving of confidence.

It is evident that the distance of 800 leagues, marked by *Acosta*, and adopted without examination by *Herrera* and *Lopez Vaz*, is a gross error, by which we cannot suffer ourselves to be misled. *Acosta* published his work in 1590, five years before Mendana's second voyage, and seems to be the first who mentioned the *Islands of Solomon*. The arrival of Admiral *Drake* in the South Sea, after the first voyage of Mendana, occasioned the establishment of a colony in these islands to be suspended for 28 years, lest the English should gain information of them. It is therefore probable that when *Acosta* spoke of them, he had but a very vague idea of their situation: and it is worthy of remark, that he makes no mention of their latitude, which all the other authors have reported uniformly.

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In a letter from *Quiros* to Don *Antonio Morga*, Lieutenant General of the Philippine Islands, it appears that, after having given him an account of Mendana's second voyage, he begged him to keep it secret: *It is desirable, says Quiros, that these islands should remain unknown, because, as they lie between Peru, New Spain, and the Philippines, the English, if they were informed of them, might make settlements there of dangerous consequence to Spain.* It is therefore further probable that Mendana's journals would be kept secret a long time after his expeditions; and we may hence conclude that all the authors, except *Quiros* and *Figueroa*, spoke of the *Islands of Solomon* on very vague information or hearsay; which accounts for the differences and contradictions in their reports. *Herrera*, in particular, seems to have been ill informed, if we may judge by the immense extent he attributes to most of these islands. The same may be said of *Lopez Vaz*, who places *Guadalcanar* in 18 degrees south latitude, and of the author consulted by *Robert Dudley*, who says that these islands were discovered in 1580, instead of 1567.

Quiros reckons 1500 leagues from the coast of Peru to Solomon's Islands: *Figueroa*, from the first of Mendana's voyages, makes it 1610, and 1580 to the island of *Santa-Cruz*, from the second voyage. We may now perceive the reason of these different results. M. de Bougainville has observed, in the narrative of his voyage round the world, that all the navigators who have crossed the South Sea have fallen in with *New Guinea*, much sooner than they ought by their reckoning; and that, consequently, they have given this sea a much smaller extent from east to west than in truth it has: this error he

attributes

attributes to the effect of favourable winds and currents in that ocean, not taken into their account. Thus Mendana, in his first voyage, being as yet unacquainted with this effect of currents and winds, which bore him away perpetually to the west, must have estimated his way at much less than the truth; and his distance, computed at 1610 leagues, must be much less than it really was. The same may be said of the distance given by Quiros, who had crossed this sea but once when he drew up his memorials. The distance of 1850 leagues reckoned in Mendana's second voyage seems to be preferable, because the navigator was more experienced, his course was more direct, and the distance, moreover, perfectly agrees with that reported by *Richard Hawkins*, from a manuscript of the Viceroy of Peru. These 1850 leagues, reckoned at the proportion of 15 to a degree, as we find them in the memoirs of the early Spanish navigators, answer exactly to 2500 English leagues of 20 to a degree.

By adopting this distance, *Solomon's Islands* recover the place near *New Guinea*, assigned to them by *Acosta*, *Herrera*, *Witfliet*, and all the old charts; and this new agreement is a strong presumption in favour of the exactness of this position. If we consider next the tracks of the navigators who sought for these islands, we shall perceive that they must have been to the west of the island *Santa-Cruz*, and consequently near *New Guinea*. *Figueroa* informs us, that when Mendana was returning to these islands, in 1595, to found a colony, he sailed on exactly between the parallels wherein he knew them to be situated; that he carefully reconnoitred every land that he found in his way; and that he arrived at the island of

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Santa-

Santa-Cruz without having fallen in with those which were the object of his voyage. Having put in at *Santa-Cruz*, he declared, from the colour of the natives, that these were of the nation he was seeking; and his widow, when she left this island, steered W. S. W. to seek for that of *St. Christopher*. Thus, in the opinion of Mendana, the Archipelago discovered by him in his first voyage, was west of *Santa-Cruz*. This was also the idea of Quiros, who, in 1606, when he set out in search of the same Archipelago, appointed *Santa-Cruz* as the place of rendezvous for his vessels, in case of separation. The same consequence is deducible from the tracks of Byron and Carteret, who sought these islands in vain to the east of *Santa-Cruz*: the latter explored the 10th and 11th parallels for more than 700 leagues, and arrived at the island of *Santa-Cruz* without having discovered them.

From Carteret's route, the island of *Santa-Cruz* may be fixed at the longitude of $162^{\circ} 20'$ east of the meridian of Paris; and the extreme point of *New Guinea* was determined, by M. de Bougainville, to be $149^{\circ} 52'$. There remain, therefore, about 12 degrees and a half, or 247 leagues, between the island of *Santa-Cruz* and *New Guinea*; and as the *Islands of Solomon* form rather an extensive Archipelago, we may take the middle of this space, and fix 156 degrees of longitude for the middle of this Archipelago. In this situation we shall find that we are just 2400 French marine leagues from the coast of Peru, the exact distance assigned by *Richard Hawkins* and *Figueroa*. In this space, and at this longitude, there is actually a group of islands, seen by MM. *de Bougainville*, in 1768, and *Surville*, in 1769, which appear to have all the characters of those of

Solomon.

Solomon. *M. de Bougainville* saw the western part of them, in seven degrees south latitude; and what he reports of the inhabitants of *Choiseul Bay*, agrees with the description given by Mendana of the natives of the Archipelago discovered by him. *M. de Surville* was in sight of these lands for the space of 130 leagues, and from the 7th to the 11th degree of latitude: not finding them set down in any chart, he named them *The Lands of the Arfacides*, from the barbarous character of the people in Port Praslin, where he had put in: and what he relates of them is equally conformable to the recital of Mendana. In the same sea, Carteret, in 1767, had discovered two small islands, which he named *Gower's* and *Simpson's* Islands, but was far from imagining that they belonged to the *Islands of Solomon*, which he had sought so long, and therefore gave himself no trouble to examine them.

Till our navigators shall complete their discoveries in this interesting and little known portion of the globe, I think I can with confidence assert, that *The Lands of the Arfacides*, and *Choiseul Bay*, are parts of the Archipelago discovered by Mendana; and, consequently, that the *Islands of Solomon* are actually about 1850 Spanish leagues distant from the coast of Peru, and in the vicinity of *New Guinea*, as the early charts had indicated*.

* It appears then, that as early as the year 1781, *M. Buache*, by combining the tracks of Mendana and Quiros, had concluded Surville's *Archipelago of the Arfacides*, to be that of *Solomon's Islands*, the middle of which he placed at 156 degrees east of the meridian of Paris. The observation taken by M. Véron, at the port of Cape St. George in New Ireland, has made the change of only one degree in this position: and the middle of the Archipelago appears to be 157 degrees east of our meridian. See Charts VIII and IX.

F I N I S.

ERRATA.

PAGE 19, line 8, for *latitude* read *sea*.

ibid. l. 10, for *Alvano* read *Alvaro*.

43, l. 4, from the bottom, for *Tunay* read *Tumay*.

109, l. 13, for *flowing* read *blowing*.

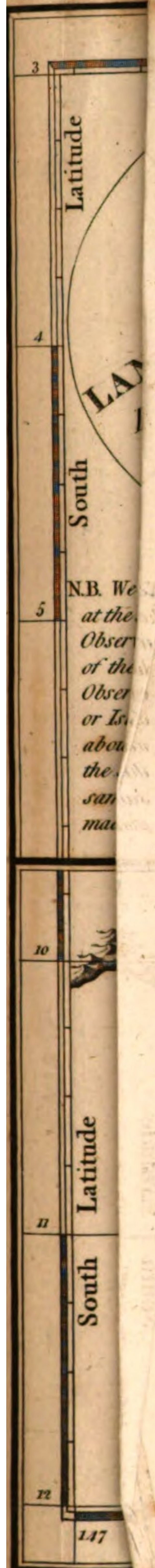
146, l. 6, from the bottom, for *full* read *just*.

147, l. 7, for *full in view*, read *just in sight*.

TO THE BINDER.

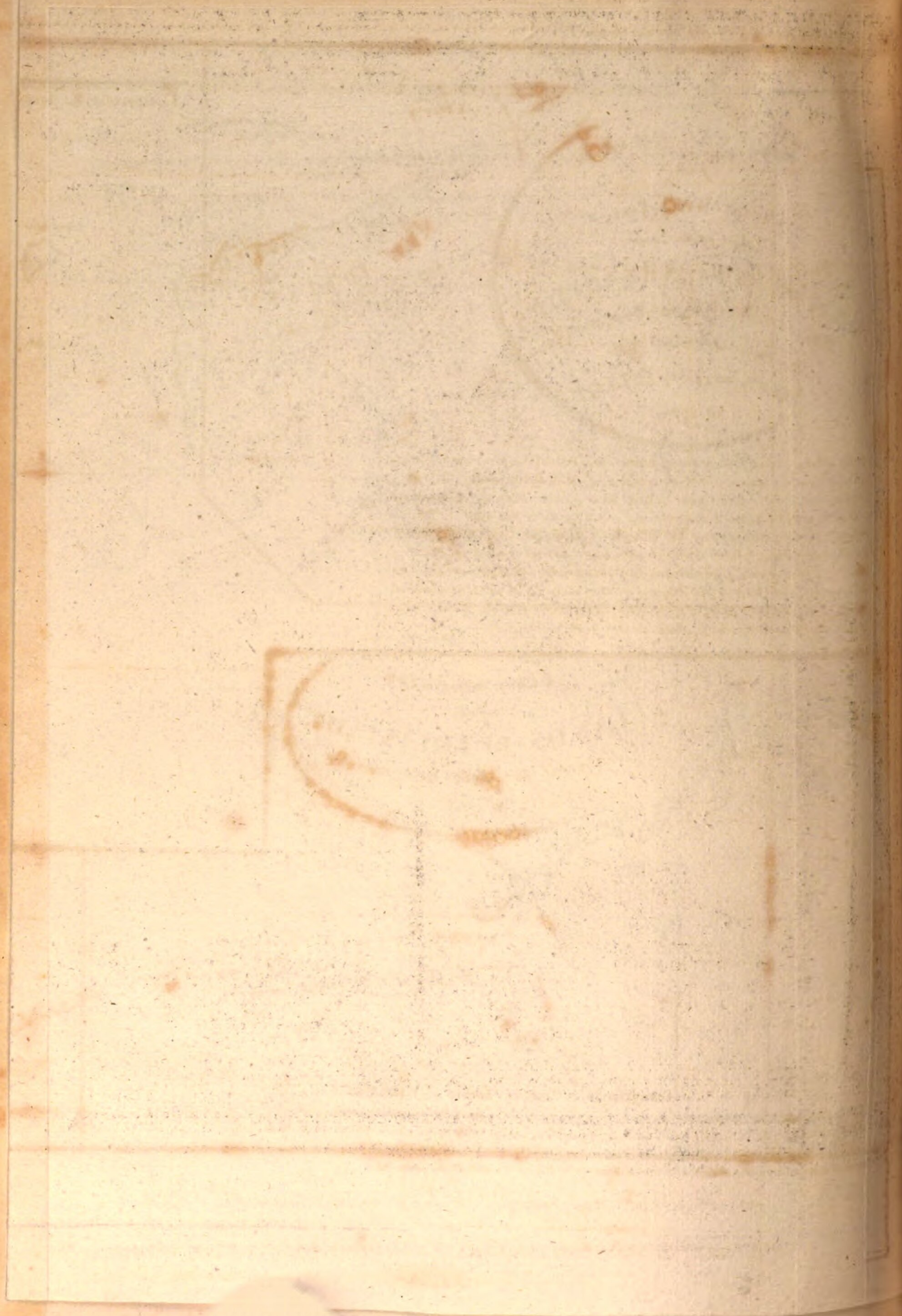
CHART I. is to be placed immediately after the Table of Contents, and to open to the left side.

The XI other Charts are to stand in regular order at the end of the work, and to open to the right.



NB. This Chart

from 8 to 9 degrees NE.



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South Latitude

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from 8 to 9 degrees. N.E.

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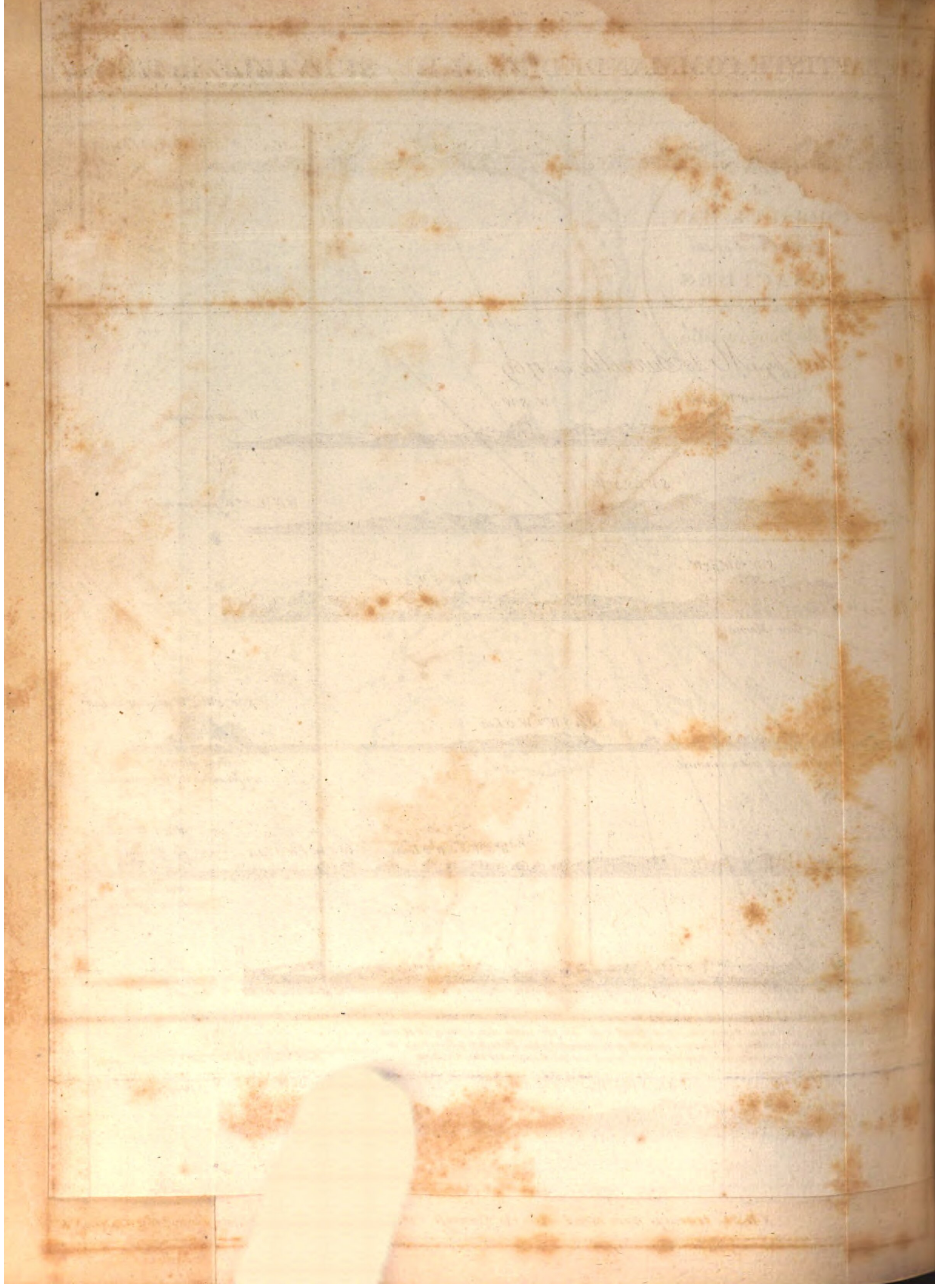
PLAN
of
CHOISEUL
on the Coast of
ARSACID
Discovered by
M. de Bougainville
in 1768.



NB. This Chart was engraved before
presented to the Royal Academy of
ascertain the date of its presentation

right

NB. The bearings were taken with the Compass the observed Variation was from 8 to 9 degrees. N.E.



CO BAPTISTE, COMMANDED BY M. DE SURVILLE in 1769

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ded by M de Surville, in 1769.

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S.W. $\frac{1}{4}$ S. 3° W.

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Gros Morne.

IV the 10th in

Lea

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S.W. $\frac{1}{4}$ W. 4° W at 10 or 12 Lea

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without Premiere Vue.

VI 12th 6 in

b

VII 12th 6 in

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S $\frac{1}{4}$ S.W. 1° W.

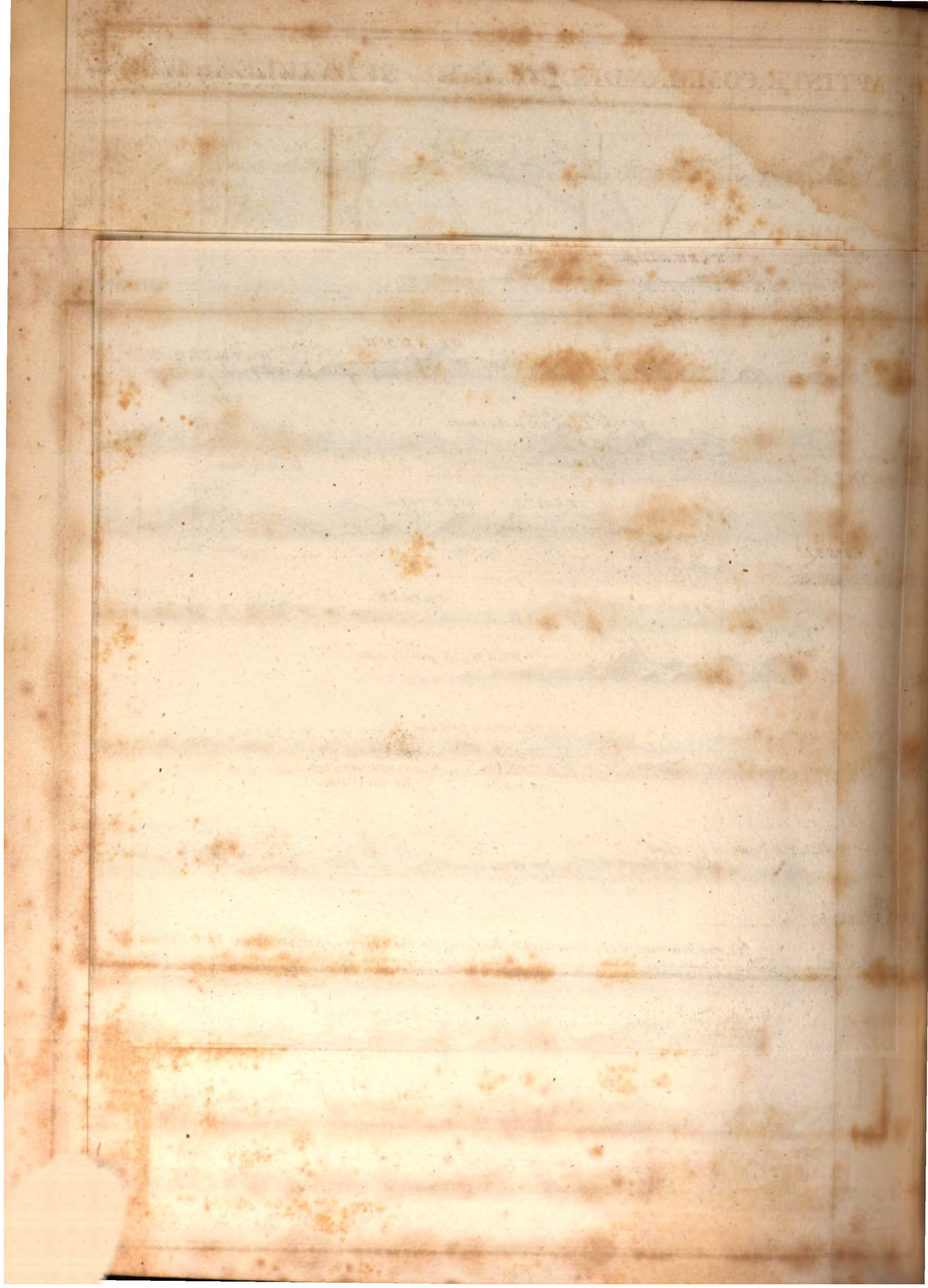
S S.W. 1° S.

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N.B. The bearings were taken with the Compass the observed Variation was from 8 to 9 degrees. N.E.



CO BAPTISTE, COMMANDED BY M. DE SURVILLE in 1769

VIII.  *W $\frac{1}{4}$ S. W. 3° W. 10 or 12 Leag.^s*

IX.  *W 2° S. W $\frac{1}{4}$ NW. 10 Leagues NW $\frac{1}{4}$ W. 12 or 15 Leagues*

X.  *SW 3° S. W $\frac{1}{4}$ NW 5° W W $\frac{1}{4}$ NW 3° N 12 or 15 L.^s*

XI.  *WNW Land lost in the Clouds*

XII.  *WSW 2° S 5 L.^s Land lost in the Clouds*

XIII.

XIV.  *W 4° S W 1° N 8 or 9 L.^s a*
just in sight Île du Golfe

XV.  *W 2° S*

NB. the bearings were taken with the Compass. the observed Variation was 8 to 9 Leagues NE.

Dis



Discover

0

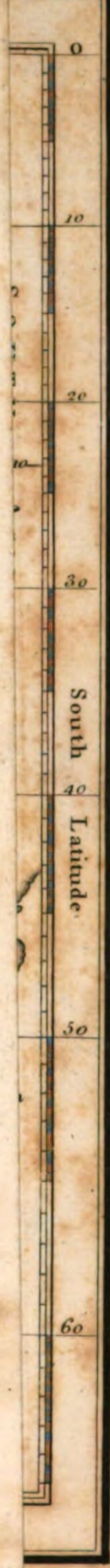
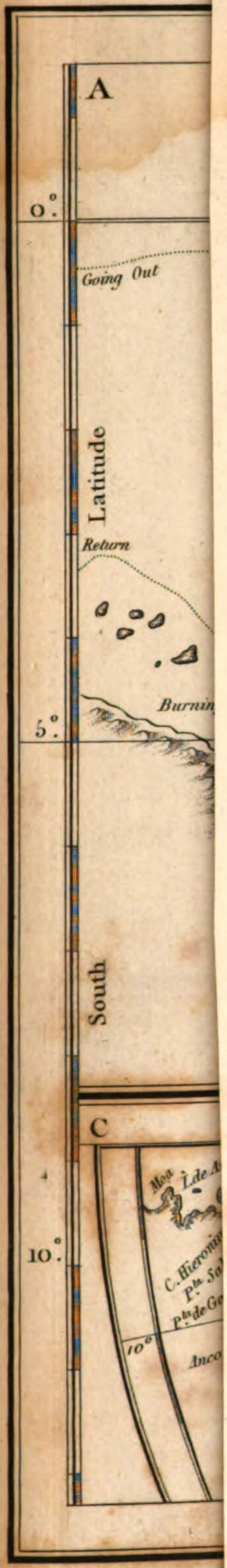
5

10

15

20





6°

7°

8°

9°

10°

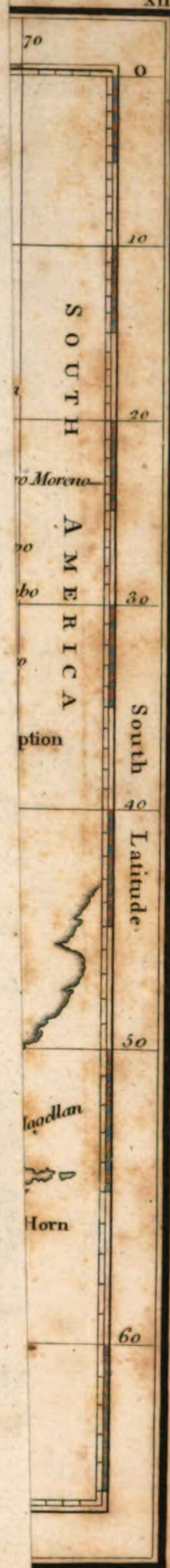
11°

Latitude

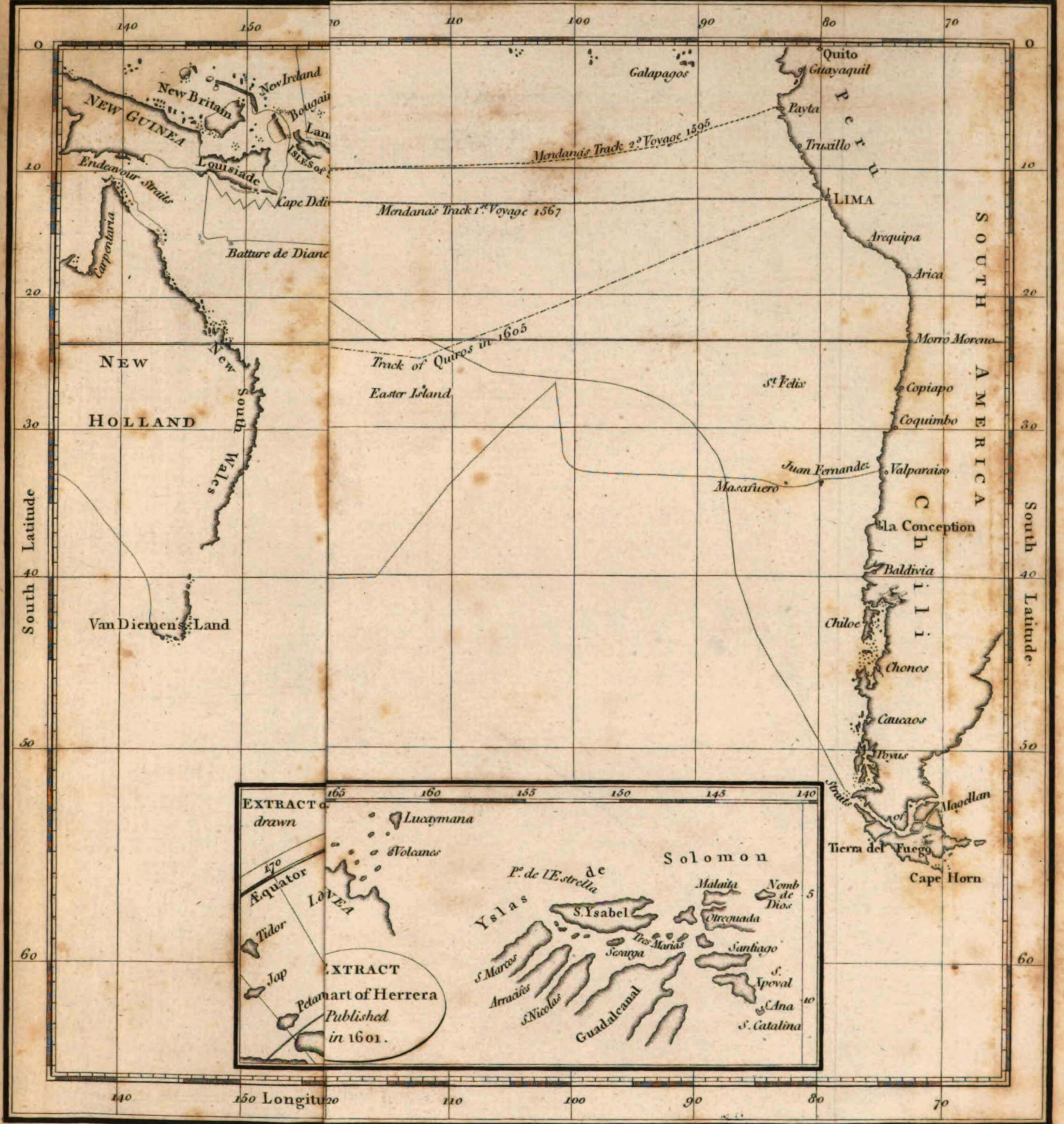
South

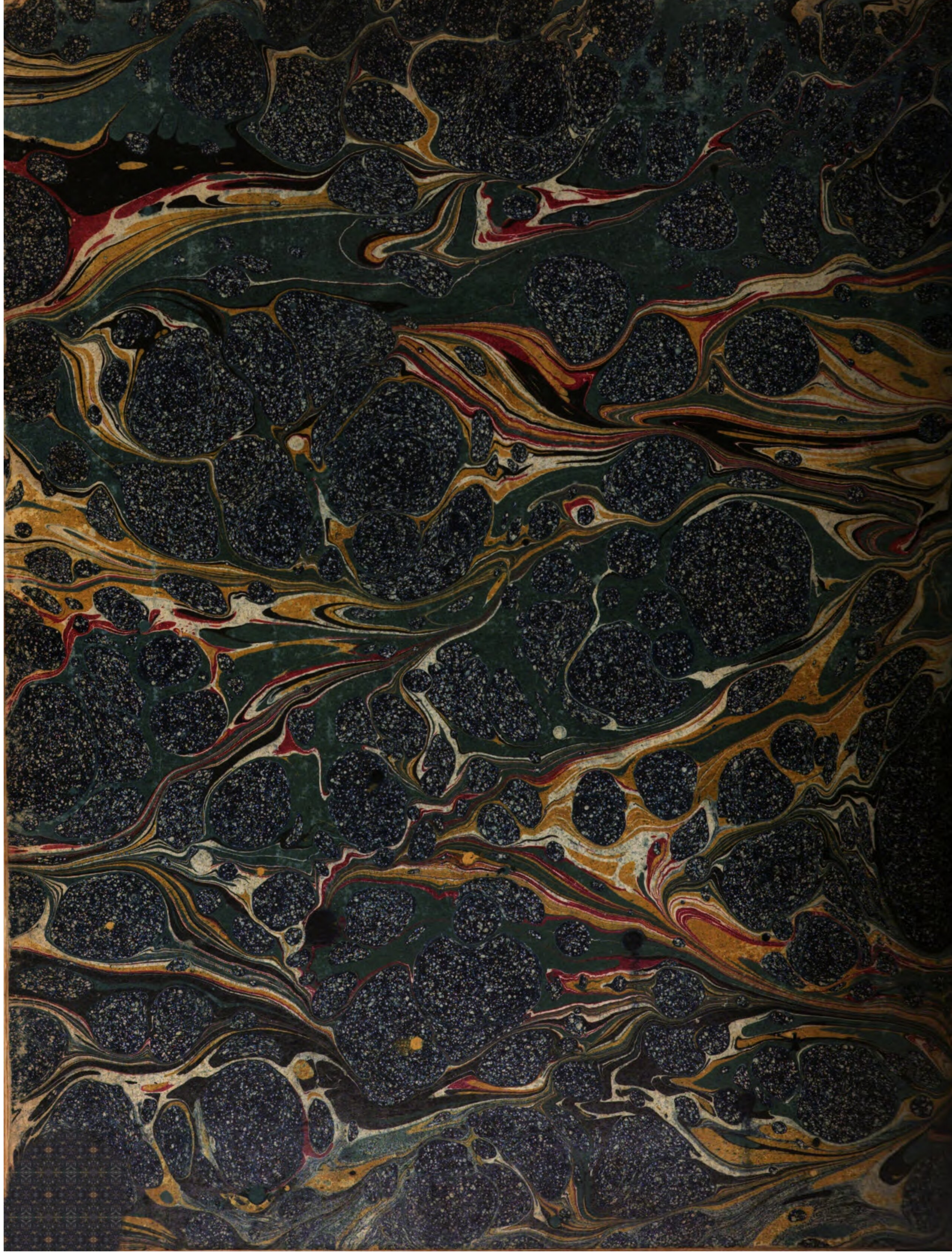
This Chart as for the sites by A denote the his Fleet of the Isl observed in The name those in I

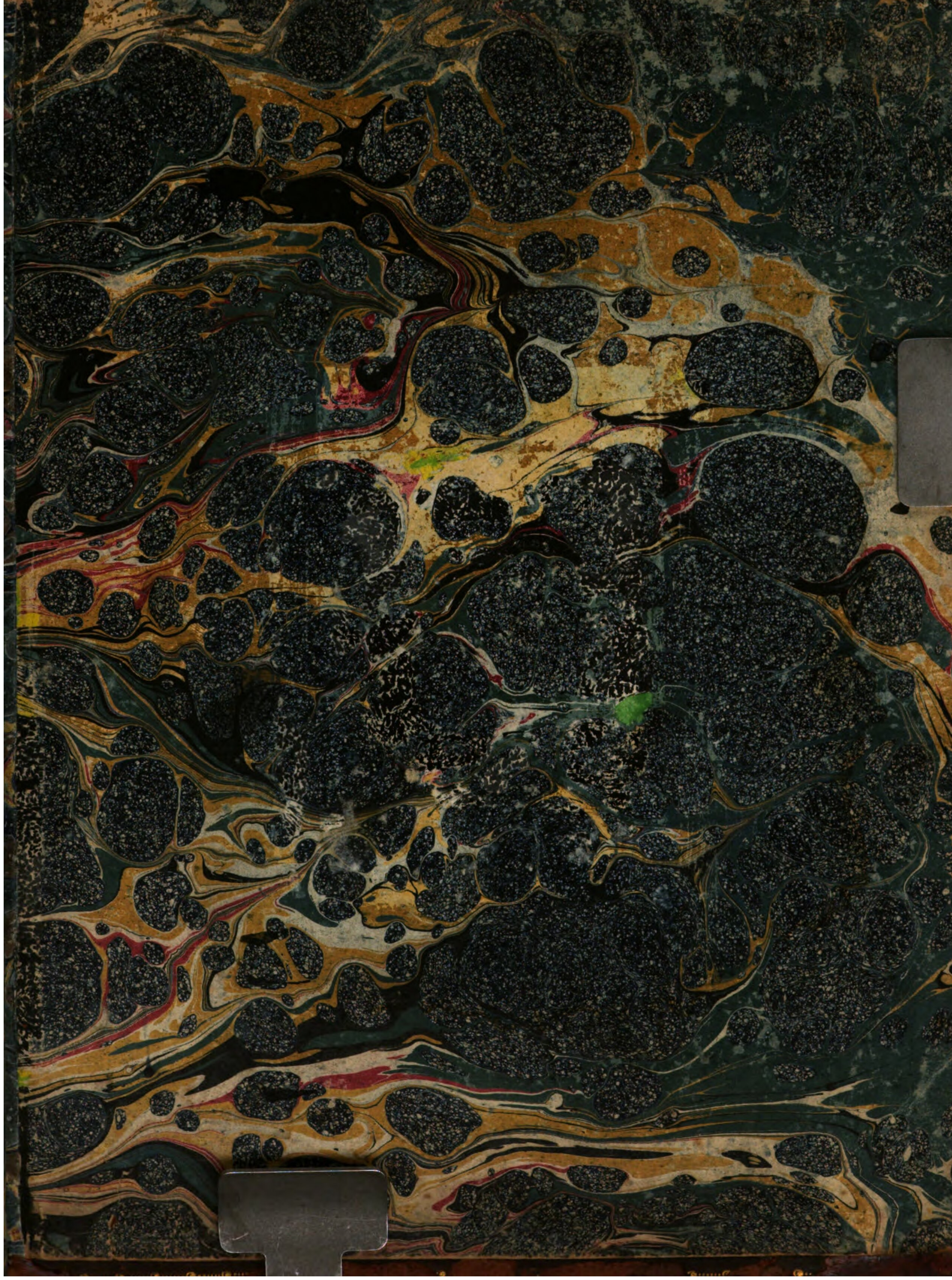
XII

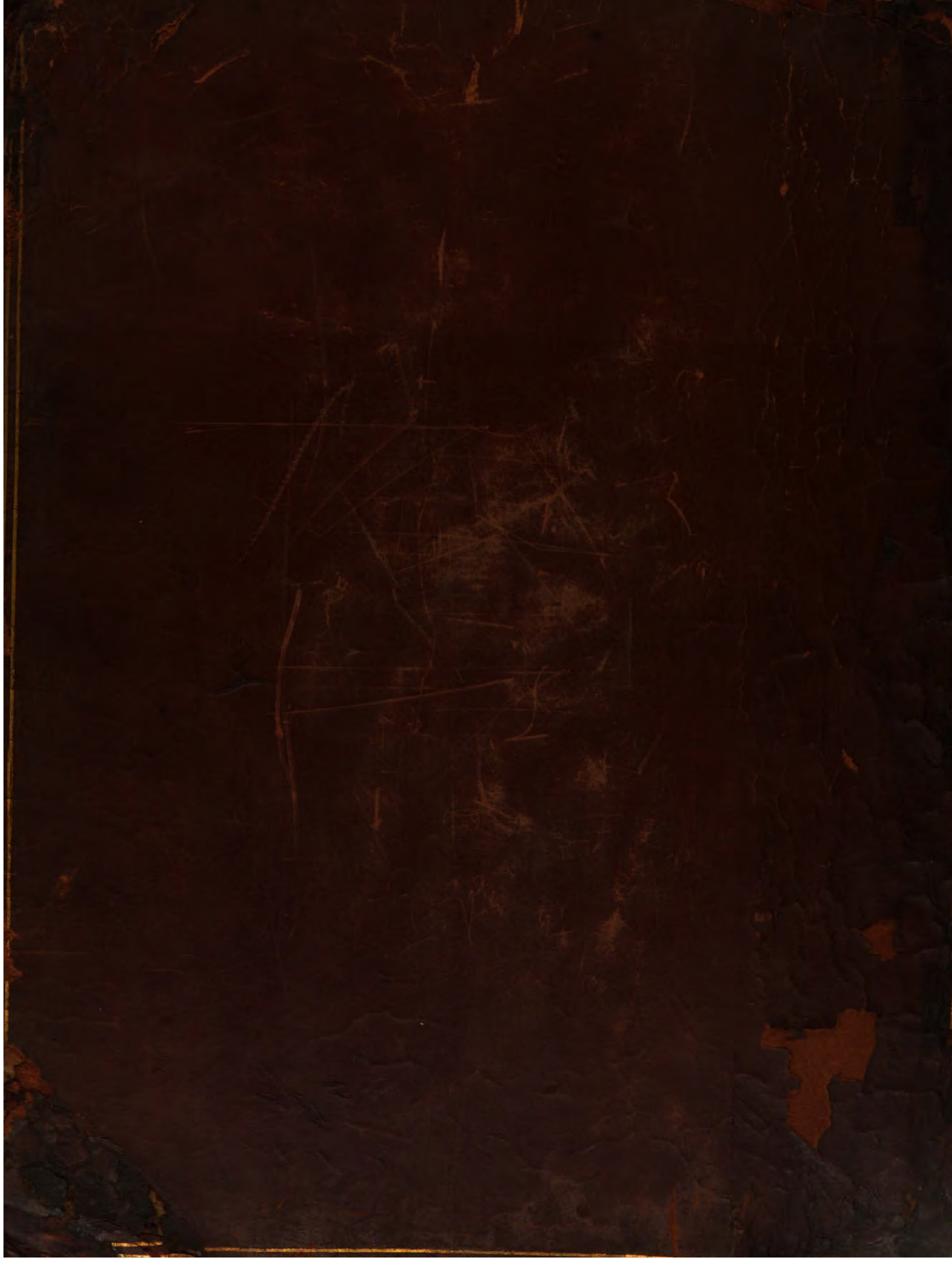












Fleurieu, C. P. Claret de,

Discoveries of the French in 1768 and 1769

Lodnon 1791

4 lt.coll. 54 w

urn:nbn:de:bvb:12-bsb10366550-5